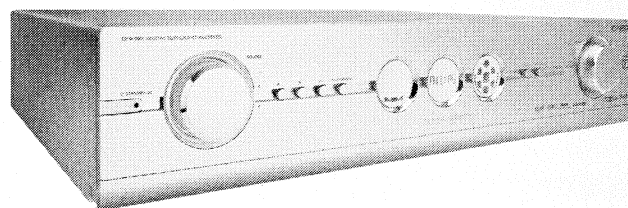


Service Service Service



Service Manual

TABLE OF CONTENTS

Technical Specification	1-1	Exploded View	18-1
Connections & Controls	1-2	Partslist	18-2
Accessories	1-4	Revision list	18-2
Safety & Warnings	2-1		
Firmware Upgrade	2-2		
Service Test Program	2-3		
Standby-LED Blinking State	2-9		
Location of Printed Boards	3-1		
Dismantling	3-1		
Block & Wiring Diagram	3-2		
Circuit Diagrams & Printed Boards			
Standby Power Supply	4-1		
Power Supply AC6750	5-1		
Front Control	6-1		
Digital I/O	7-1		
Video Processing Board	8-1		
Video I/O	9-1		
Front Left	10-1		
Front I/O	11-1		
Front Keys	12-1		
Front Right	13-1		
Audio Signal Processing Board	14-1		
UCD Amplifier	15-1		
Speaker Terminal	16-1		
DAB Interface	17-1		

© Copyright 2005 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips.

Published by PW 0510 Service Audio Printed in The Netherlands Subject to modification
Version 1.0

GB 3103 785 25290



PHILIPS

TECHNICAL SPECIFICATION

General

Dimensions	: 435 x 100 x 370mm
Net weight	: 7.0kg
Power Supply /22S	: 230V \pm 10%, 50Hz
Power consumption Standby	: \leq 0.5W

DAB Tuner

Tuning range	: 174-240MHz (Band III) 1452-1492MHz (L)
--------------	---

AM Tuner

Tuning range /22S	: 531-1602kHz, 9kHz grid
Tuning range /37	: 530-1700kHz, 10kHz grid
IF	: 450kHz
Sensitivity (26dB S/N)	: \leq 3250 μ V/m (2000 μ V/m)
Distortion (rf=1mV, m=80%)	: \leq 5% (4% typ.)

FM Tuner

Tuning range /22S	: 87.5-108MHz, 50kHz grid
Tuning range /37	: 87.5-108MHz, 100kHz grid
IF	: 10.7MHz
Sensitivity (26dB S/N)	: \leq 22dBf (15dBf typ.)
-3dB limiting point	: \leq 23.5dBf (10dBf typ.)
Distortion (rf=1mV, m=80%)	: \leq 3% (0.23% typ.)
Crosstalk (rf=1mV, Δ f=75kHz)	: \leq -26dB (-48dB typ.)

Video performance – Composite Video

Signal level	: 1Vpp (75 Ω)
Frequency response	: 0-6MHz
S/N ratio	: >50dB

Video performance – S-Video

Signal level Y	: 1Vpp (75 Ω)
Signal level C	: 0.286Vpp (75 Ω)
Frequency response	: 0-6.5MHz
S/N ratio	: >65dB

Video performance – Component Video / RGB

Signal level Y	: 1Vpp (75 Ω)
Signal level PB/CB, PR/CR	: 0.7Vpp (75 Ω)
Signal level R/G/B	: 0.7Vpp (75 Ω)
Frequency response	: 0-7MHz
Frequency resp. progressive	: 0-16MHz
S/N ratio	: >70dB

Video input resolutions/formats

PAL 576i (720 x 576i)
PAL progressive 576p (720 x 576p, downscaled to 576i)
NTSC 480i (720 x 480i)
NTSC progressive 480p (720 x 480p, downscaled to 480i)

Video output resolutions/formats

PAL input 50Hz (TV)	: 576i (720 x 576i) 576p (720 x 576p) 720p (1280 x 720p) 1080i (1920 x 1080i)
NTSC input 60Hz (TV)	: 480i (720 x 480i) 480p (720 x 480p) 720p (1280 x 720p) 1080i (1920 x 1080i)

Digital video input/output

PAL input 50Hz (TV)	: 576i (720 x 576i) 576p (720 x 576p) 720p (1280 x 720p) 1080i (1920 x 1080i)
NTSC input 60Hz (TV)	: 480i (720 x 480i) 480p (720 x 480p) 720p (1280 x 720p) 1080i (1920 x 1080i)
PC input 60Hz	: VGA (640 x 480p) SVGA (800 x 600p) XGA (1024 x 768p) SXGA (1280 x 1024p)

Audio Line-in

Input sensitivity	: 0.2-2.8Vrms
Input impedance	: 22k Ω

Audio Line/Rec Out

Output voltage	: 1.6Vrms
Output impedance	: 1k Ω
Frequency response	: 5Hz-100kHz
S/N ratio	: 110dBA typ.
THD (1kHz, 1W)	: \leq 0.0016%

Power amplifier

Output power (1kHz, THD=1%)	: 2 x 110W RMS into 4 Ω 6 x 65W RMS into 4 Ω
Frequency response (1W)	: 5Hz-45kHz
S/N ratio	: 105dBA typ.
THD (1kHz, 1W)	: \leq 0.065%

ADC/DAC

Resolution	: 24bits/96kHz
------------	----------------

Digital In/Out

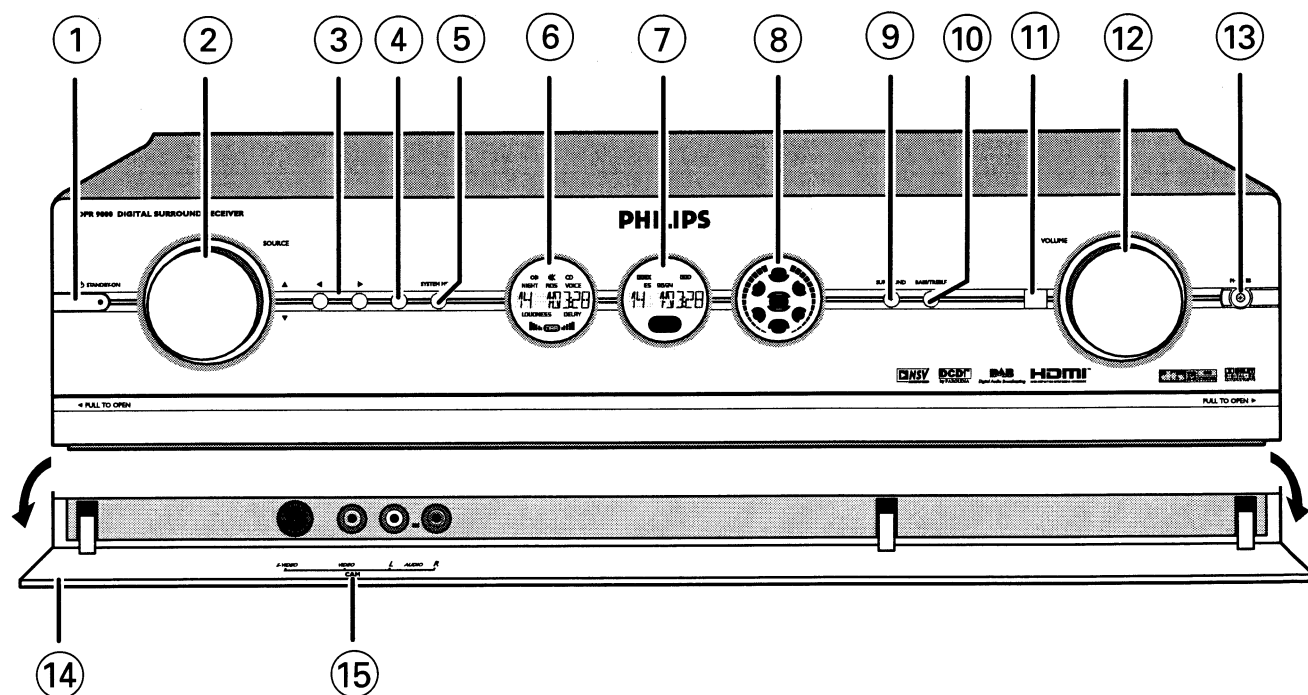
Coaxial input	: 0.2Vpp, 75 Ω
Coaxial output	: 0.5Vpp, 75 Ω

Supported multichannel formats

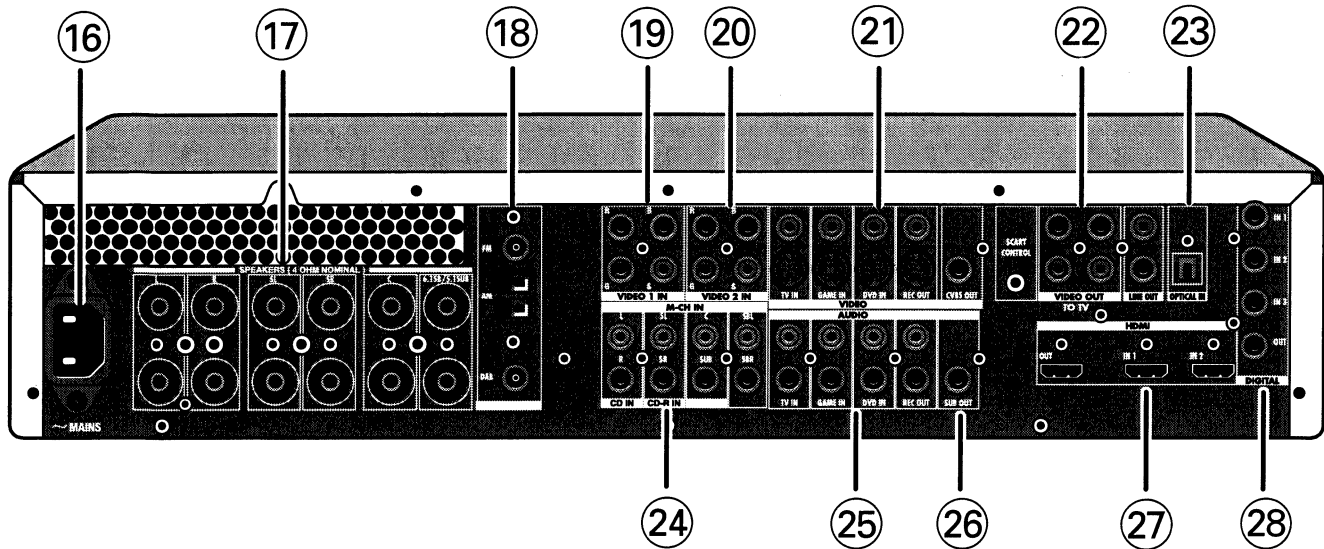
Dolby ProLogic IIx, Dolby Digital, Dolby Digital EX, DTS, DTS 96/24, DTS ES Matrix, DTS ES Discret, DTS NEO:6

CONNECTIONS & CONTROLS

Front View



Pos	Function	Remarks
1	STANDBY-ON	Switches the set on and to standby. Standby/On LED (indicator in the Power/standby button) lights up red when the set is switched off.
2	UP / DOWN	Selects the various connected sources in amplifier mode. - Navigates in up and down direction in the menu. - Selects previous and next broadcasting station in Tuner and DAB mode.
3	LEFT / RIGHT	- Navigates in left and right direction in the menu. - Selects previous and next preset station in Tuner and DAB mode.
4	OK	- Confirms action in the menu. - Selects secondary audio services in DAB mode.
5	SYSTEM MENU	Opens and closes the system menu.
6	Left display	- Indicates the present status of the set. - Indicates signal strength in DAB mode. - Indicates the present source.
7	Centre display	Informs on the present status of the set, selected surround modes and displays the system menu, sub menu's and menu settings.
8	Right display	- Shows what speakers are active. - Indicates volume level.
9	SURROUND	Selects the various available surround modes. Availability of surround modes depends on speaker setup and type of input signal.
10	BASS / TREBLE	Enables the VOLUME control to adjust the low (Bass) and high (Treble) frequency response for all channels.
11	IR	Receives the signals from the remote control.
12	VOLUME	Controls the output level of all audio channels.
13	PHONES	Outputs audio signals when listening with headphones.
14	Flap	Covers the audio and video input sockets on the front of the set.
15	CAM	Inputs audio and video signals from a portable external source, e.g. a video camera.

Rear View

Pos	Function	Remarks
16	MAINS	Mains inlet socket.
17	SPEAKERS (4 OHM NOMINAL)	Speaker connection panel for connecting: L/R - Left (L) and right (R) front speakers SL/SR - Surround left (SL) and surround right (SR) speakers C - Centre speaker 6.1SB/5.1SUB - Surround back speaker to be connected in a 6.1 speaker configuration. In case no surround back speaker is connected (5.1 or less speaker configuration), these sockets can be used for connecting a passive subwoofer.
18	ANTENNA	FM-, AM- and DAB antenna connectors.
19	VIDEO 1 IN (R, G, B, S)	RGBS video input sockets for connection to the SCART connector of a DVD player/recorder, using the 6 cinch to Scart cable supplied. These sockets can be reassigned for connection to other video equipment.
20	VIDEO 2 IN (R, G, B, S)	RGBS video input sockets for connection to the SCART connector of a satellite receiver, using the 6 cinch to Scart cable supplied. These sockets can be reassigned for connection to other video equipment.
21	VIDEO	TV IN / GAME IN / DVD IN CVBS (upper down) and S-Video (lower row) video input sockets for connecting to the CVBS or S-Video output sockets of a TV, game console or DVD player/recorder. These sockets can be reassigned for connection to other video equipment. REC OUT CVBS (upper socket) and S-Video (lower socket) video output sockets for connecting to the CVBS or S-Video input sockets of a DVD recorder or VCR. CVBS OUT CVBS output socket for connection to a TV with a CVBS input socket.
22	VIDEO OUT LINE OUT	TO TV These output sockets are used for connecting the set to the Scart connector of the TV, using the 6 cinch + Scart control to Scart cable. SCART CONTROL For inserting the 2.5mm jack. When the set is activated, Scart control will automatically switch the TV to the correct (active) input source (provided that Scart connection has been made). The active source will be shown on the TV screen. VIDEO OUT RGBS output sockets for inserting the 4 video cinch connectors. These sockets can also be connected to the RGB input sockets of a TV. LINE OUT Audio output sockets for inserting the 2 audio cinch connectors.
23	OPTICAL IN	Audio input socket for connection to the digital (optical) audio output socket of a satellite receiver. This socket can be reassigned for connection to other video equipment (e.g. a CD player, DVD player or CD recorder).
24	M-CH IN	Audio input sockets for connection to the multichannel audio output sockets of multichannel equipment. These sockets are assigned for connection to a SACD player. If no multichannel equipment is available the L/R, SL/SR and C/SUB sockets can be reassigned for connection to analog audio equipment (CDIN, CD-R IN and AUX IN). The SBL/SBR sockets has no function when no multichannel equipment is connected.

Pos	Function	Remarks
25	AUDIO	TV IN / GAME IN / DVD IN Stereo audio input sockets for connection to the audio output sockets of a TV, game console or DVD player. In case one of these sockets is connected to a recording device, this socket needs to be selected in the 'Configuration' menu (sub menu 'Rec audio'). AUDIO - REC OUT Stereo audio output sockets for connecting to the audio input sockets of a DVD recorder or VCR.
26	SUB OUT	Output socket for connecting to an active subwoofer.
27	HDMI	HDMI - OUT Output socket for connection to a TV with a HDMI input socket. HDMI - IN 1 Input sockets for connection to the output socket of a SACD player. HDMI - IN 2 Input sockets for connection to the output socket of a HDMI source device. These sockets can be reassigned for connection to other HDMI equipment (e.g. a HDMI DVD player or a satellite receiver).
28	DIGITAL	DIGITAL IN 1 / IN 2 / IN 3 Audio input sockets for connection to the digital (coaxial) output socket of digital playback/recording equipment. IN 1: DVD player/recorder IN 2: CD player/recorder IN 3: Any digital (coaxial) device These sockets can be reassigned for connection to other digital playback/recording equipment (e.g. a CD player/recorder, DVD player/recorder). DIGITAL OUT Output socket for connection to the digital input socket of a CD recorder. 1

ACCESSORIES


Article	Codenummer	DFR9000/01
Mains Cord /00 (EUR)	2422 070 00005	X
Mains Cord /05 (UK)	2422 070 00007	X
Remote Control DVP900SA	3139 248 72131	X
DAB Antenna	3103 308 55941	X
AM Loop Antenna	2422 549 45386	X
Connecting Cable PAL	3103 140 25022	X
Cinch-Cable Audio 2x2, 1.5m, Gold	3103 308 94971	X
Cinch-Cable Audio 4x2, 1.5m, Gold	3103 308 94981	X (2x)
Cinch-Cable Digital-Out, 75R, 1m, Gold	3103 308 94961	X
SCART Adaptor 6xCinch+1xControl, 1.5m	2422 076 00635	X
SCART Adaptor 6xCinch, 1.5m	2422 076 00636	X

x...supplied with the set

SAFETY & WARNINGS


(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Safety components are marked by the symbol 

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.


Les composants de sécurité sont marqués 

SAFETY




(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.


Sicherheitsbauteile sind durch das Symbol  markiert.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast. De Veiligheidsonderdelen zijn aangeduid met het symbool 

(I)

Le norme di sicurezza estigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenti di sicurezza sono marcati con 

(GB) WARNING

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wristband with resistance. Keep components and tools at this potential.

ESD



(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Sorgen Sie dafür, daß Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.

Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

After servicing and before returning the set to customer perform a leakage current measurement test from all exposed metal parts to earth ground, to assure no shock hazard exists.

The leakage current must not exceed 0.5mA.

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

ESD PROTECTION EQUIPMENT

ESD3 KIT

- Anti-static table mat (600x650x1.25mm)
- Anti-static wristband
- Connection box (3 press stud connections, 1MΩ)
- Extendible cable (2m, 2MΩ, to connect wristband to connection box)
- Connecting cable (3m, 2MΩ, to connect table mat to connection box)
- Earch cable (1MΩ, to connect any product to table mat or to connection box)

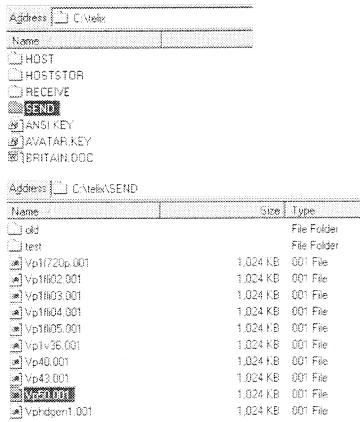
4822 310 10671

FIRMWARE UPGRADE

Occasionally, Philips will release new firmware for the microcontroller and Audio-DSP on the Video Processing Board. The binary firmware upgrade file(s) will be made available via the official service channels (i.e. symptom/cure system and/or customer care website).

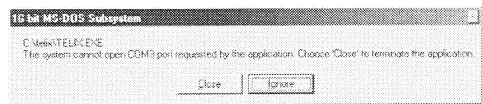
To upgrade the firmware proceed as follows:

- 1. Download and install the communication application "Telix for DOS" (<http://www.telix.com/>).
- 2. Download the binary upgrade file and copy it to the "SEND" folder within the Telix-directory. Upgrade files have the extension ".001", e.g. "Vp50.001".

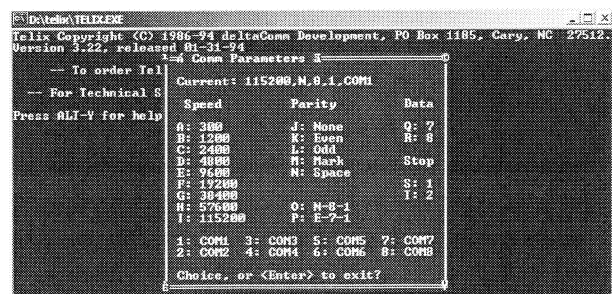


- 3. Connect the VPB board (connector 1009) with the power supply (power not switched on yet). Connect the VPB board via connector 1012 (white connector with 7 pins) with the Interface-Board (VPB-Interface).

- 4. Start "TELIX.EXE" (if a window with the following error message appears, just select "ignore").



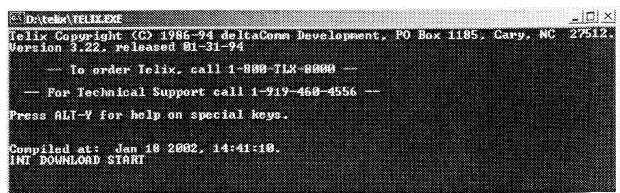
- 5. Press <Alt> + <p> to initialize the COM-port. Select Speed 115200 (press I) and the used COM-port (press number):



Press <Enter> to close the window.

- 6. Switch on the power supply and press the RESET-button on the interface-board (RESET = pin1 on VPB connector 1011).

In the Telix-window "INT DOWNLOAD START" appears:

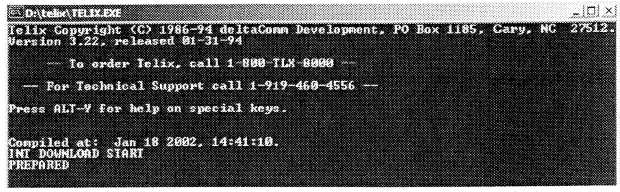


If this message doesn't appear, then there's something wrong with the communication.

- 7. Press the following keys in sequence:

<f> <p> <c> <Enter>

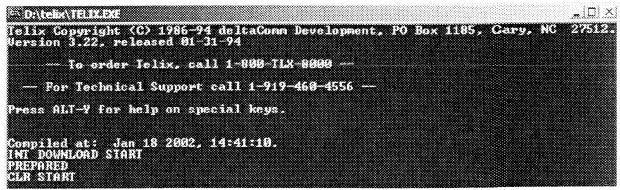
In the Telix-window "PREPARED" appears:



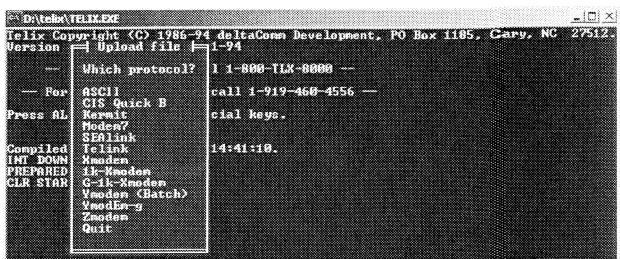
- 8. Press the following keys in sequence:

<f> <c> <f> <Enter>

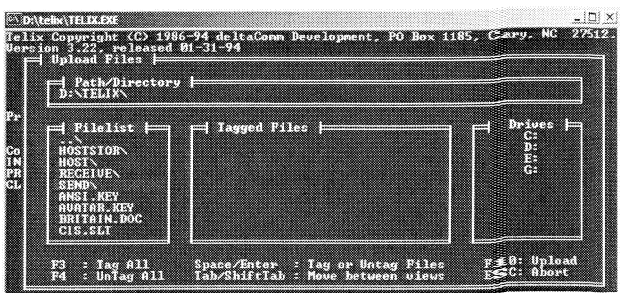
In the Telix-window "CLR START" appears:



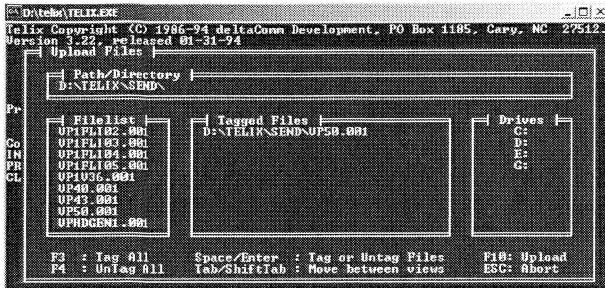
- 9. Press <Alt> + <s>, select "1k-Xmodem" in the pop-up-window (with cursor keys) and press <Enter>.



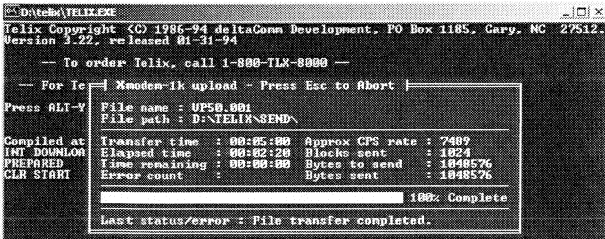
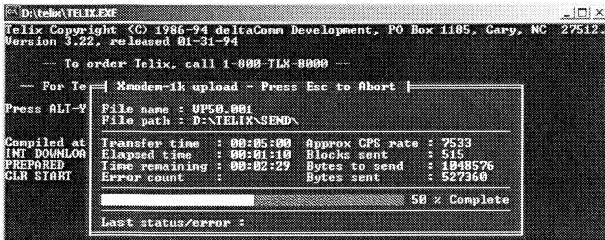
- 10. Press <Tab>, select directory "SEND" (with cursor down) and press <Enter>.



11. Now select the supplied firmware-file and press <Enter>.



12. Press <F10> and wait until the download has finished.



If the message "Telix Warning, upload was aborted" appears during download, check connections and restart at point 6.

13. To program another board, restart at point 6 or press <Alt> + <x> to close Telix.

SERVICE TEST PROGRAM

The Digital A/V Receiver DFR9000 is equipped with comprehensive service & diagnostic features. The set internal service mode provides following test loops:

- EEPROM test
- EEPROM format
- Display test
- Key/RC/Rotary test
- I2C & SPI communication test
- DAB bit error rate test
- Audio switch test
- Video switch test
- Video test patterns
- Temperature & fan test

1. Entering the service mode

To enter the service mode hold the button <PREVIOUS> depressed while connecting mains.

The set will enter the **main menu** of the service mode and display the following message:

Left part of LCD	Middle part of LCD
L xx yy	mm dd.dd

L.....Country code (E=EU, U=US, O=OS)
 xx.....Version of front processor firmware
 yy.....Version of Video Processing Board firmware
 mm.....Version of Audio-DSP firmware
 dd.dd....Version of DAB tuner firmware

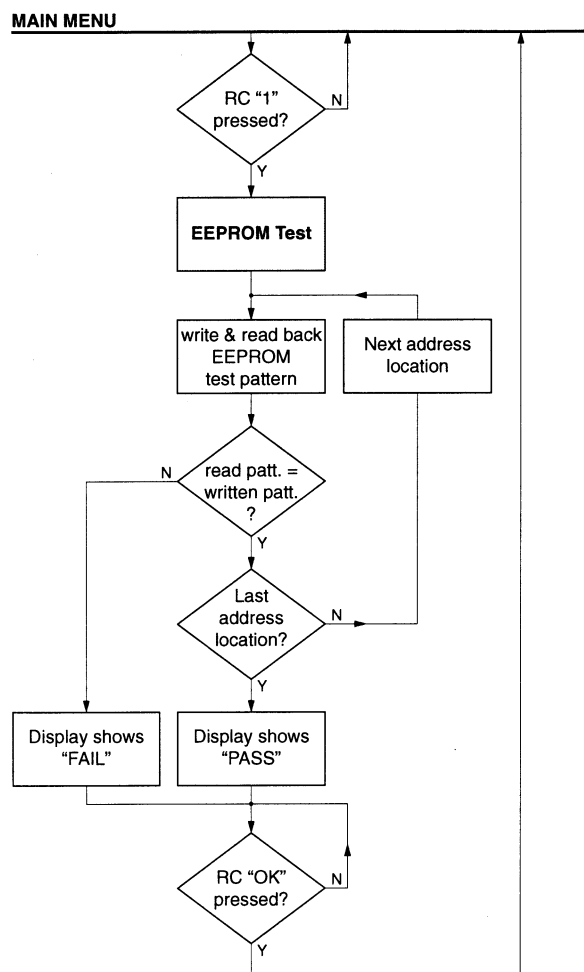
From the main menu various test loops can be executed by pressing dedicated keys (see table below).

Test loop	Key to enter
EEPROM test	RC 1
EEPROM format	RC 2
Display test	RC 3
Key/RC/Rotary test	RC 4
I2C & SPI communication test	RC 6 or SOUND
DAB bit error rate test	RC 7
Audio switch test	RC 8
Video switch test	RC 0
Video test patterns	RC 9 or SURROUND
Temperature & fan test	RC DISPLAY

To exit a certain test loop press <OK>.

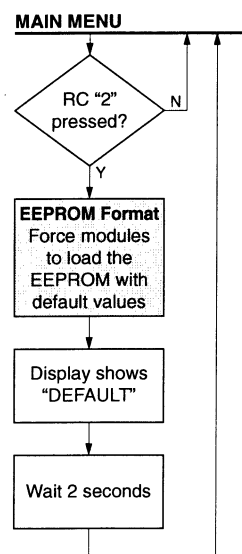
2. EEPROM test

Purpose: This test is used to check reading and writing of data from and to the EEPROM located on the front board.



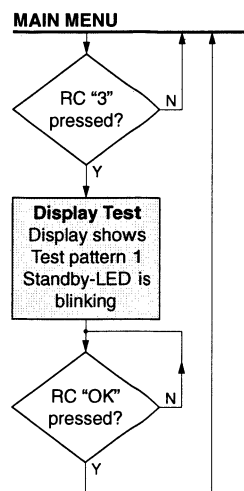
3. EEPROM format

Purpose: Format the EEPROM located on the front board (i.e. load the EEPROM with factory defaults).



4. Display test

Purpose: This test is used to check the standby-LED, the driving circuits and the display for short-circuits, open circuits or other defects.

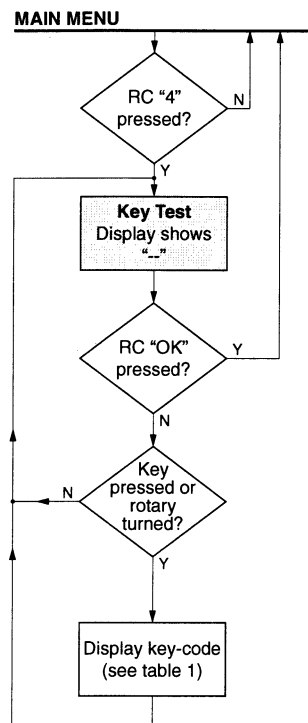


Display Test – Test pattern 1



5. Key test

Purpose: This test is used to check the keys and rotaries on the set and the reaction on commands from the remote control.

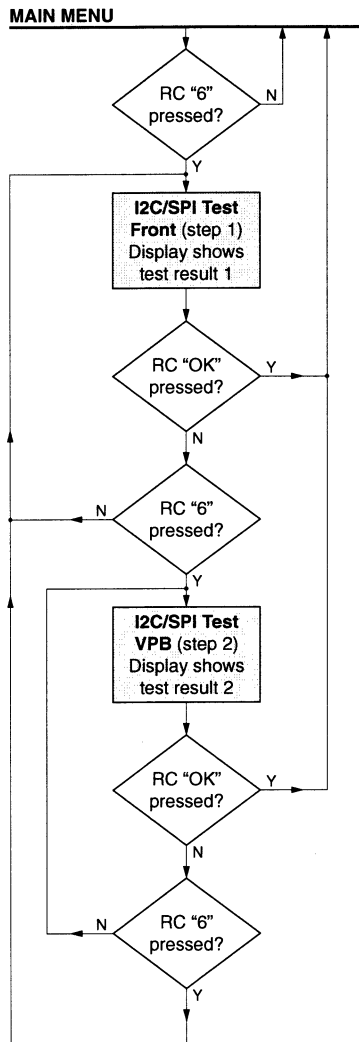


Key	Display
STANDBY-ON	KEY 1
PREVIOUS	KEY 2
NEXT	KEY 3
SYSTEM MENU	KEY 5
SURROUND	KEY 6
BASS/TREBLE	KEY 7
SOURCE UP	SRC UP
SOURCE DOWN	SRC DOWN
VOLUME UP	VOL UP
VOLUME DOWN	VOL DOWN
REMOTE CONTROL	KEY RCx yy zzz ¹⁾
Press <OK> on the set to exit the key-test.	

¹⁾ x5=RC5, 6=RC6
 yy.....system address
 zzz.....command code

6. I2C and SPI communication test

Purpose: This test checks communication with devices connected to the internal I2C and SPI bus.



Notes: I2C devices are tested by sending the slave address and looking for "ACK".

SPI devices are tested by sending certain settings and reading them back.

Test result 1: Display shows "F xxxx xxxxxxxx"
 x="0"test/device failed
 x="1"test/device passed
 x="--"test not executed

The digits (read from left to right) have following meaning:

Digit	Device
1	IC1B (VOLUME S2L/S2R)
2	IC1B (VOLUME C/SUBW)
3	IC1B (VOLUME SL/SR)
4	IC1B (VOLUME L/R)
5	DAB MODULE
6	STV6618 (Video Switch)
7	CS42418 (CODEC)
8	VPB
9	CS4391 (DAC)
10	not used
11	not used
12	not used

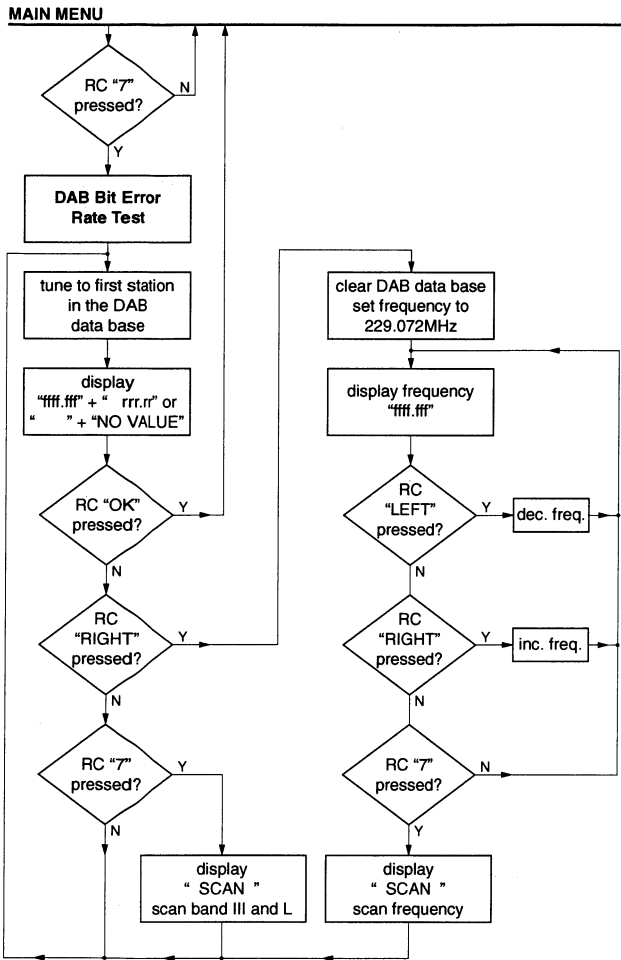
Test result 2: Display shows "V xxxx xxxxxxxx"
 x="0"test/device failed
 x="1"test/device passed
 x="--"device not tested

The digits (read from left to right) have following meaning:

Digit	Device
1	VPB (TMP91CW12)
2	OSD (LC74732) - not tested
3	DSP (DSP56367)
4	SPDIF Rx (AK4112)
5	VIP
6	USER EEPROM
7	HDMI TRANSMITTER
8	HDMI RECEIVER
9	DENC
10	FAROUDJA
11	EDIT EEPROM 1
12	EDIT EEPROM 2

7. DAB bit error rate test

Purpose: Reads and displays the bit error rate of the DAB tuner.

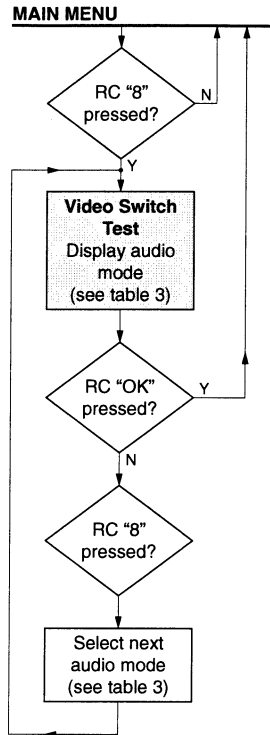


Notes: "rrr.rr" is the bit error rate in %.

"NO VALUE" is shown if no station is available. In this case connect antenna or the test signal and press the DAB ErrorBitRate button again. The module will scan band III and the L band for stations (about 2 minutes) and tune to the first station found. It is possible to set the DAB module to a defined center frequency. Press "RIGHT" on the RC and 229.072 MHz center frequency (228.304 till 229.840 with block name 12D) will be selected. Use "RIGHT" and "LEFT" to select another frequency. Press the DAB ErrorBitRate button to tune to the frequency.

7. Audio switch test

Purpose: Switches several audio modes according to the table below. System related limitations are ignored.



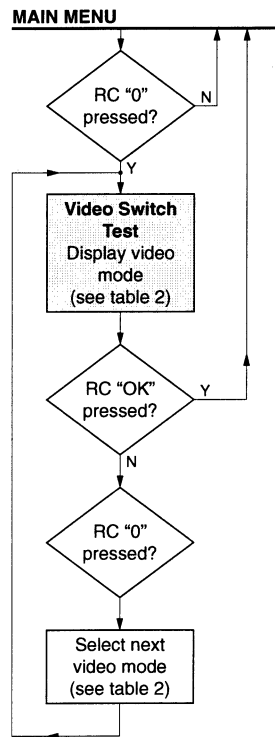
Audio mode	Description	Display
Multi channel	Link multi channel inputs to the loudspeaker without using the DSP; all amplifiers are enabled; all muting functions are disabled	M_CH IN
Analog1	Link the tuner to the output	TUNER IN
Analog2	Link TV in to the output	TV IN
Analog3	Link Front in	CAM IN
Analog4	Link DVD in	DVD IN
Analog5	Link Game in	GAME IN
ADC test	Link Game in but use the DSP (ADC-DAC)	ADC IN
Test tone generator L	Use test tone generator on the VPB with 440Hz	LEFT
Test tone generator C	Use test tone generator on the VPB with 440Hz	CENTER
Test tone generator R	Use test tone generator on the VPB with 440Hz	RIGHT
Test tone generator SR	Use test tone generator on the VPB with 440Hz	REAR R
Test tone generator SL	Use test tone generator on the VPB with 440Hz	REAR L
Test tone generator SUBW	Use test tone generator on the VPB with 440Hz	SUBW
Test tone generator L downmix	Use test tone generator on the VPB with 440Hz	DOWN L
Test tone generator R downmix	Use test tone generator on the VPB with 440Hz	DOWN R
Coax1	Use digital in, decode if DD or DTS and transfer to the loudspeaker	COAX1 IN
Coax2	Use digital in	COAX2 IN
Coax3	Use digital in	COAX3 IN
Optical	Use digital in	OPT IN
	Start again with first item	

Notes: All DAC/CODEC outputs are routed to amplifiers/line out sockets. If connecting ADC data output to all data inputs of CODEC/DAC in parallel, input signal to ADC will show on all outputs.

The test starts with -30dB as volume setting. VOLUME (at least rotary) will work setting the volume level. BASS/TREBLE will be 0dB (not changeable). The routing will be influenced by HP connect (HP out instead of LS). Line out and record out is always active (L+R).

8. Video switch test

Purpose: Switches several video modes according to the table below. System related limitations are ignored.

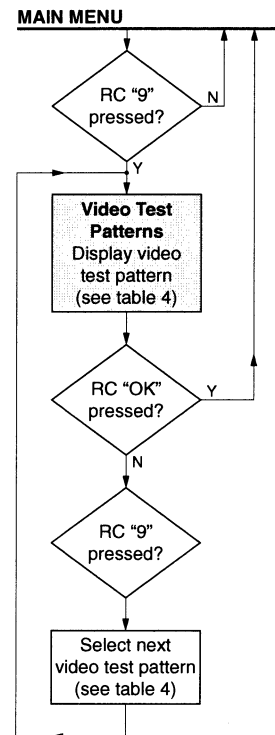


Video mode	Description	Display
CAM CVBS in (front)	CVBS from front Pin 8 = LOW, Pin 16 = LOW	CAM CV
TV CVBS in	CVBS from rear 1 Pin 8 = HIGH, Pin 16 = LOW	TV CV
GAME CVBS in	CVBS from rear 2 Pin 8 = HIGH, Pin 16 = LOW	GAME CV
DVD-RW CVBS in	CVBS from rear 3 Pin 8 = HIGH, Pin 16 = LOW	DVDRW CV
CAM S-Video in (front)	CVBS from front Read offset (SCRF) Write SCRF to pin 8 and S-Video, Pin 16 = LOW	CAM SV
TV S-Video in	S-Video from rear 1 Read offset (SCRF) Write SCRF to pin 8 and S-Video, Pin 16 = LOW	TV SV
GAME S-Video in	S-Video from rear 2 Read offset (SCRF) Write SCRF to pin 8 and S-Video, Pin 16 = LOW	GAME SV
DVD-RW S-Video in	S-Video from rear 3 Read offset (SCRF) Write SCRF to pin 8 and S-Video, Pin 16 = LOW	DVDRW SV
YUVCV-in4	YUV+CVBS in read Pin 16 = HIGH, Pin 8 = HIGH	VIDEO 1
YUVCV-in5	YUV+CVBS in read Pin 16 = HIGH, Pin 8 = MID	VIDEO 2
	Start again with first item	

Note: Video signal is shown on the video outputs without any enhancement.

9. Video test patterns

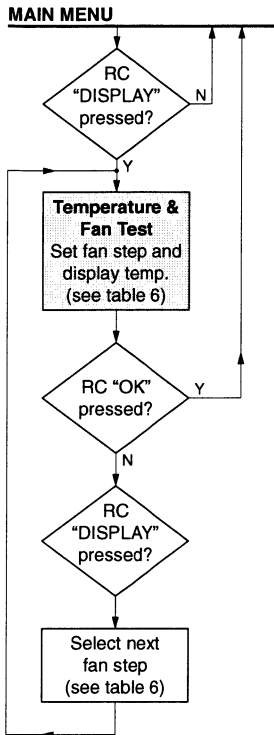
Purpose: Activates video test patterns of the following ICs in sequential order: Denc → Faroudja → VIP → OSD → HDMI receiver → HDMI transmitter



Picture	Source	Description	Display
Color bar	Denc	Checks DENC and VIP clock generation	DENC 1
Color bar	Faroudja	Checks Faroudja, DENC and VIP clock generation	FAR 1
Blue screen	VIP	Checks VIP and DENC on CVBS and S-Video	VIP 1
Message screen	OSD	Checks OSD, VIP and DENC on CVBS and S-Video	OSD 1
Message screen	Faroudja	Full loop through checks OSD - VIP - DENC and Faroudja - HDMI TX - HDMI RX	LOOP 1
Message screen	Faroudja	Full loop through checks OSD - VIP - DENC and Faroudja - HDMI TX - HDMI RX	LOOP 2
		Start again with first item	

10. Temperature & fan test

Purpose: This test measures the temperature inside the set and switches the fan speed for both fans in parallel.



Test step	Display left LCD part	Display right LCD part
Temp & fan off	Temperature in °C	OFF
Fan current	Temperature in °C	TURNING or FAN FAIL
Fan full	Temperature in °C	SPEED 3
Fan > half	Temperature in °C	SPEED 2
Fan < half	Temperature in °C	SPEED 1
Fan low	Temperature in °C	SPEED 0

Note: "FAN FAIL" indicates fan current out of range.

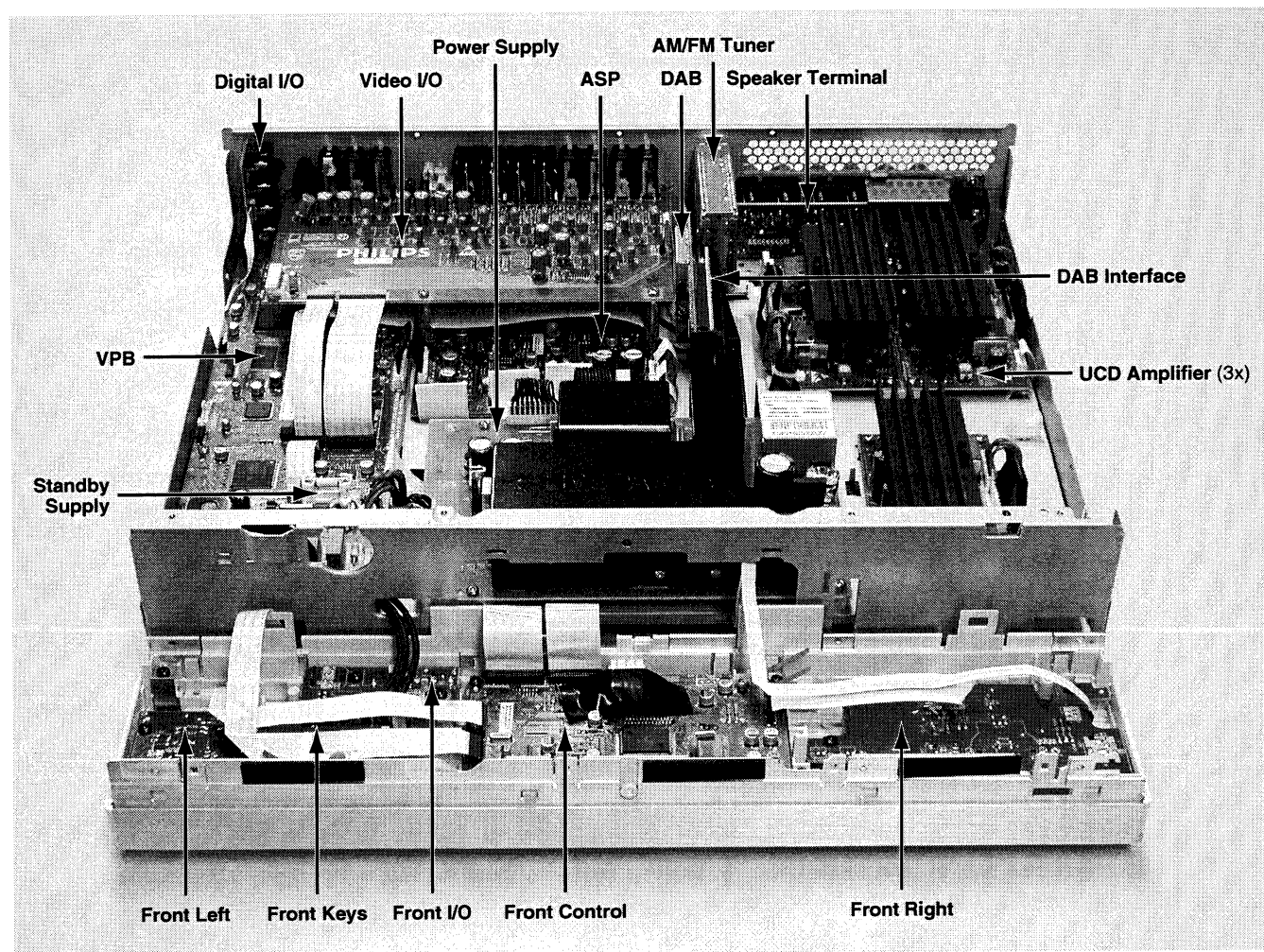
Standby-LED Blinking State

When the set is in standby mode and the Standby-LED is blinking, the internal protection circuits have detected a serious problem and the set won't wake up anymore.

Errors are reported via the "ERR_FLAG" line, which can be triggered from following circuitries:

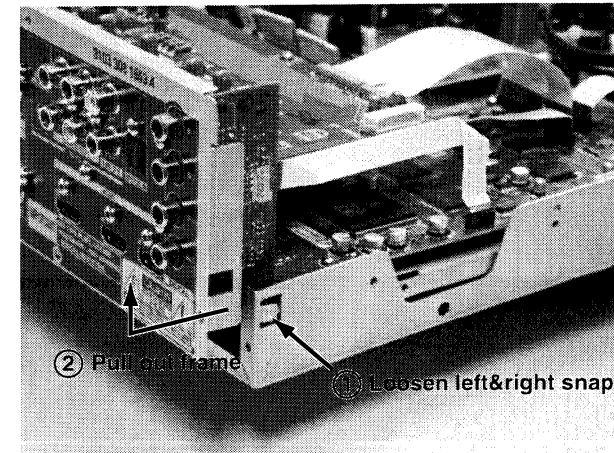
- **DC protection** on UCD Amplifiers
(see **UCD 2**, components around transistor 7212)
→ Most likely, one of the UCD Amplifiers is defective and must be replaced.
- **Overvoltage protection** for +5V and +12V on ASP Board
(see **ASP Board 6**, components around transistor 7604)
→ Most likely, Power Supply AC6750 is defective and must be replaced.

LOCATION OF PRINTED BOARDS

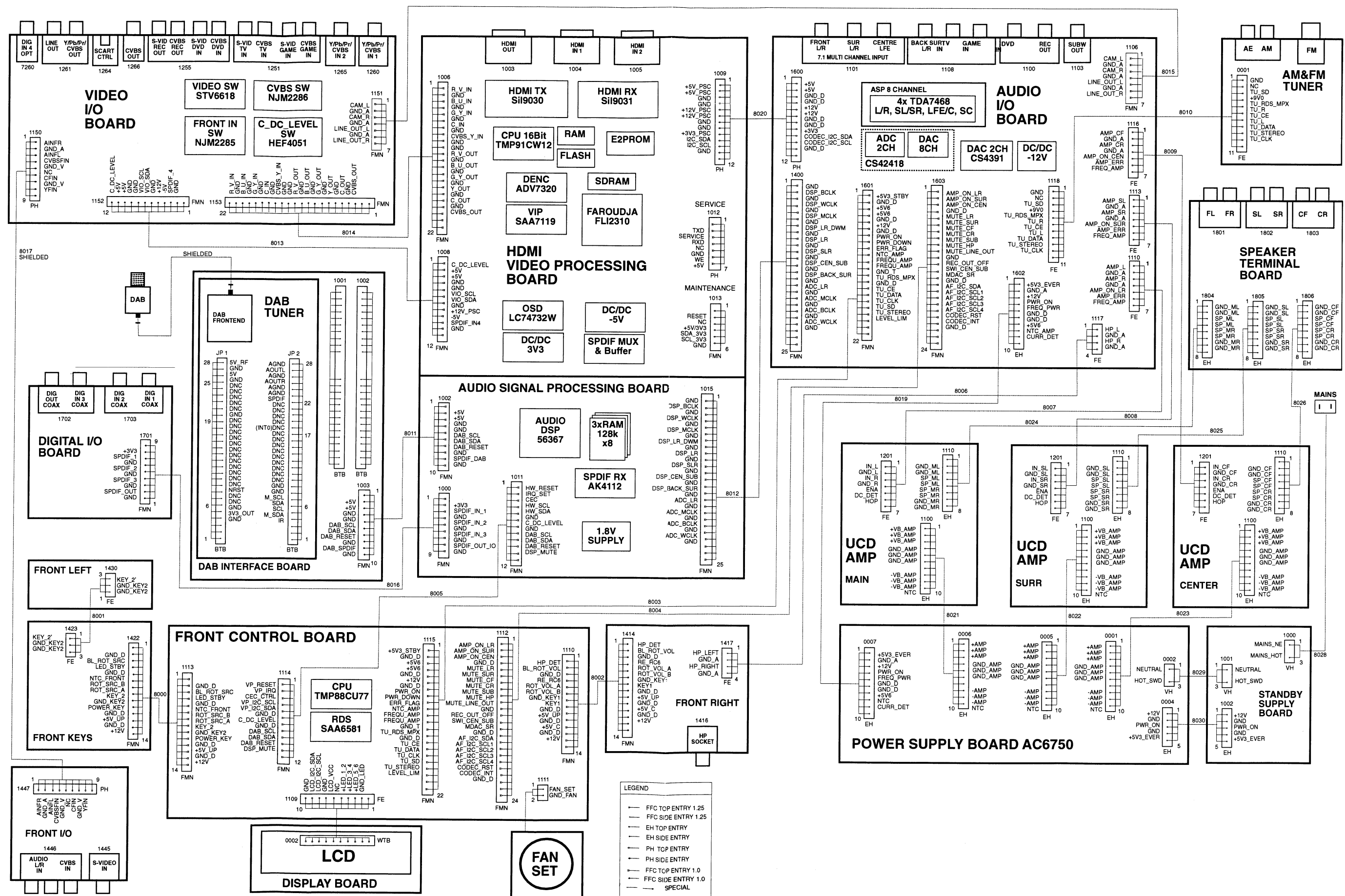


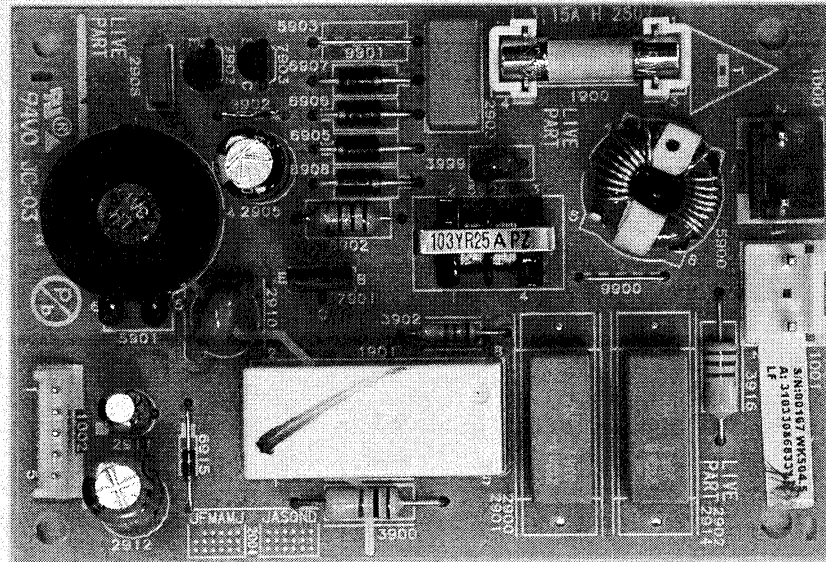
DISMANTLING

- Remove top cover (2 screws on the left, 2 screws on the right, 5 screws on the rear)
- Remove front (4 screws on top, 4 screws on bottom)
- Remove air channel (4 screws in corners)
- Remove safety cover
- Loosen frame screws (2 screws on the left, 2 screws on the right, 3 screws on the rear, 1 screw on the bottom)
- Loosen snaps and pull out frame as shown below



3-2





Standby Power Supply

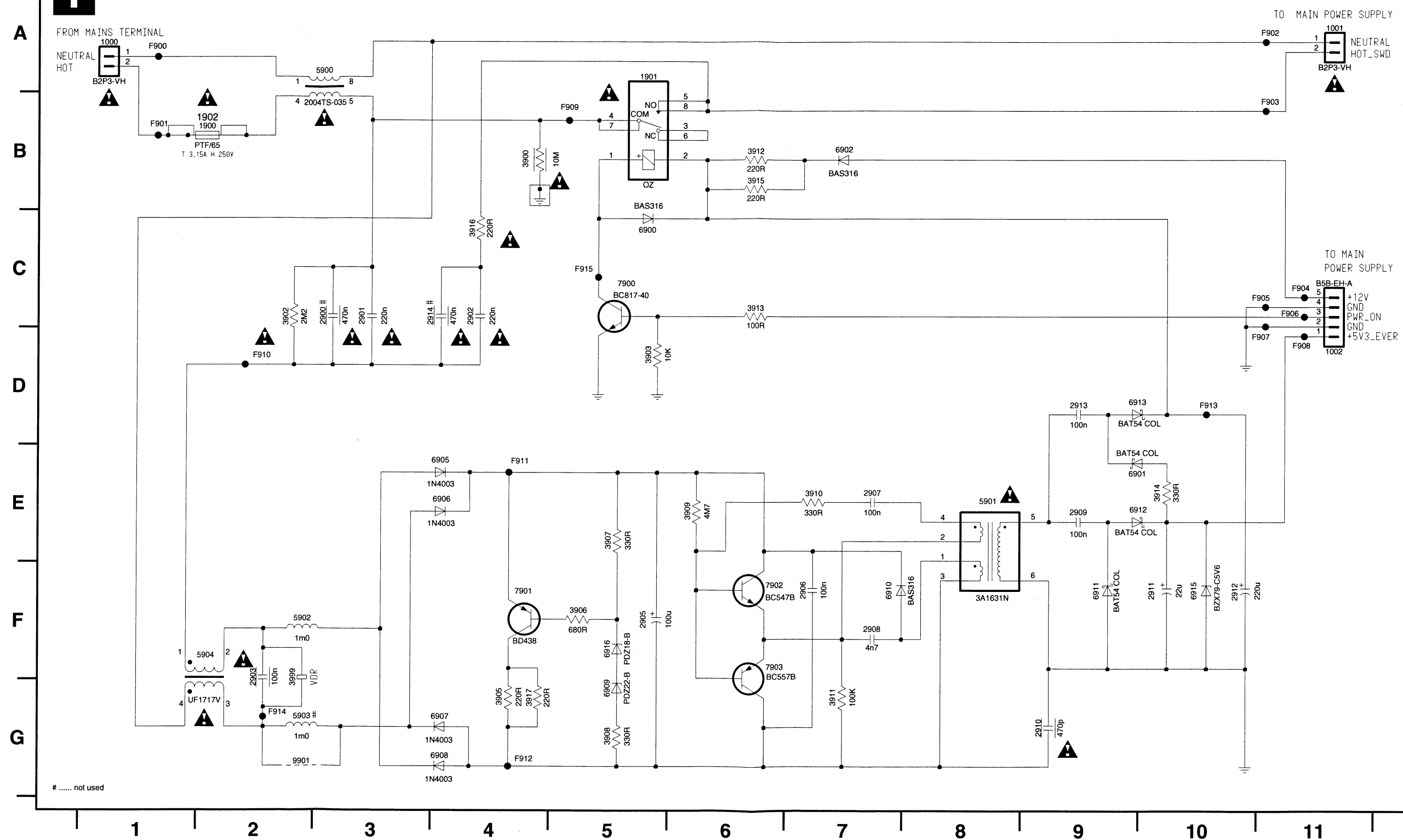
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

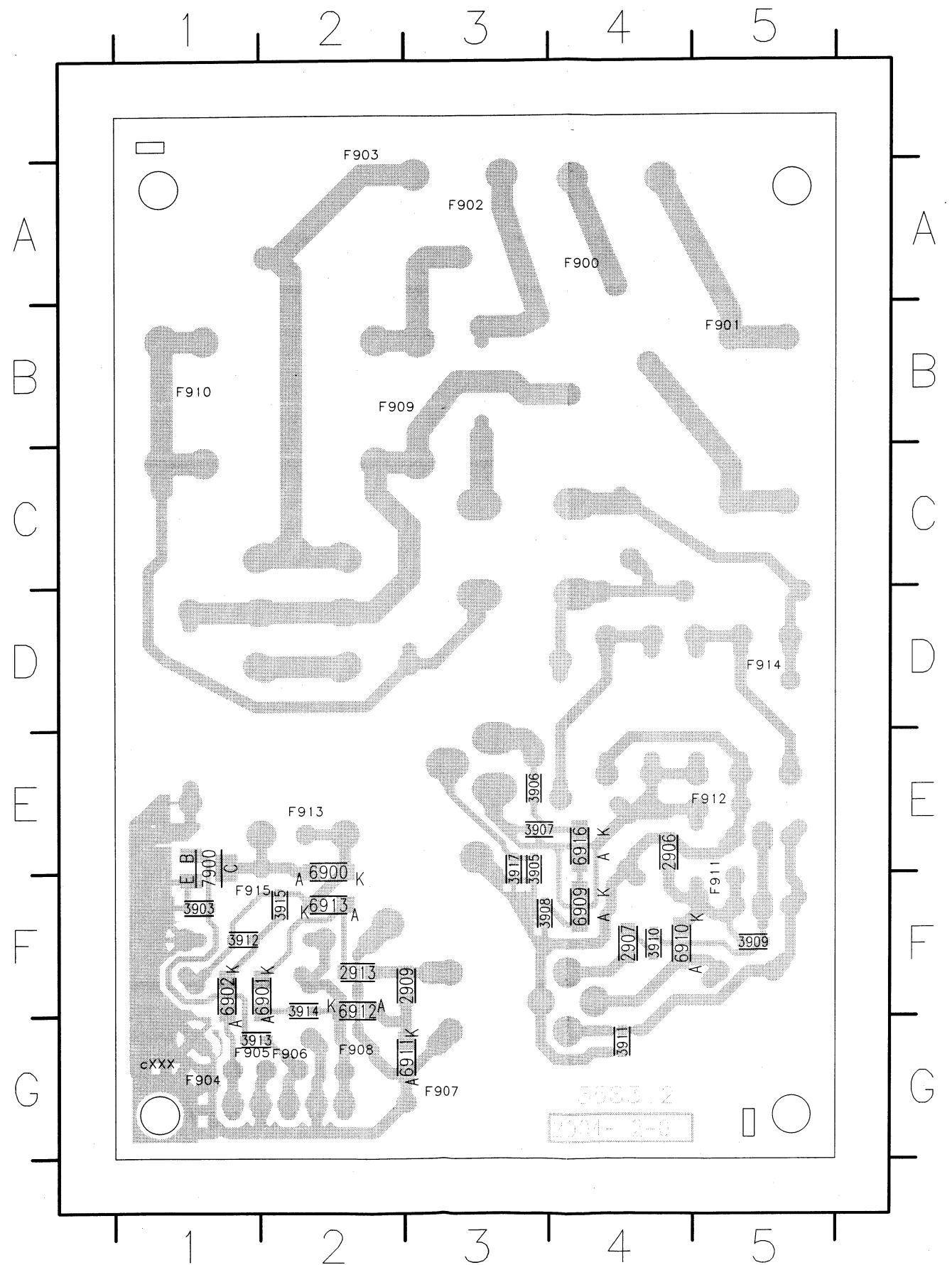
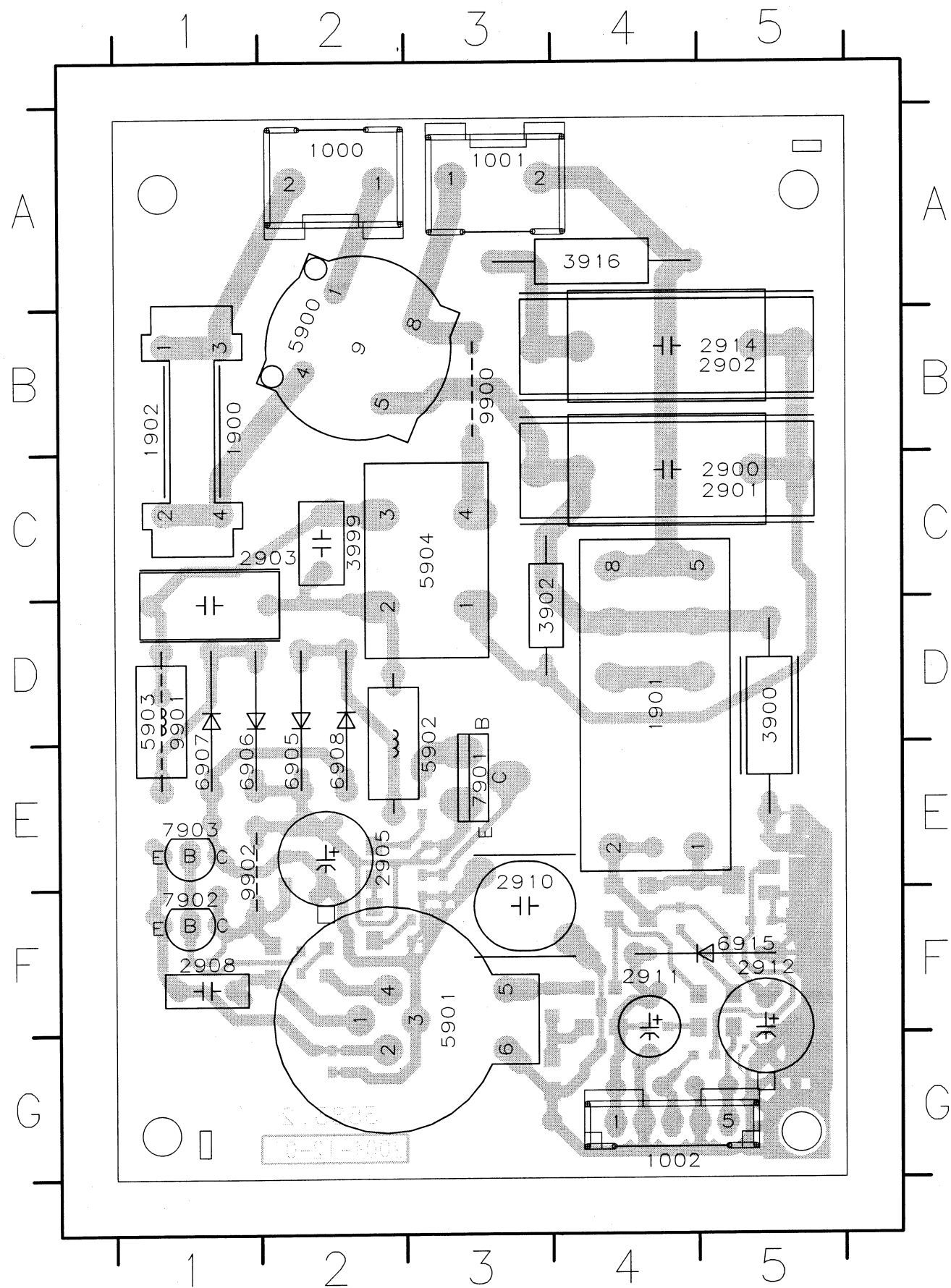
In case of defects please replace the entire board.

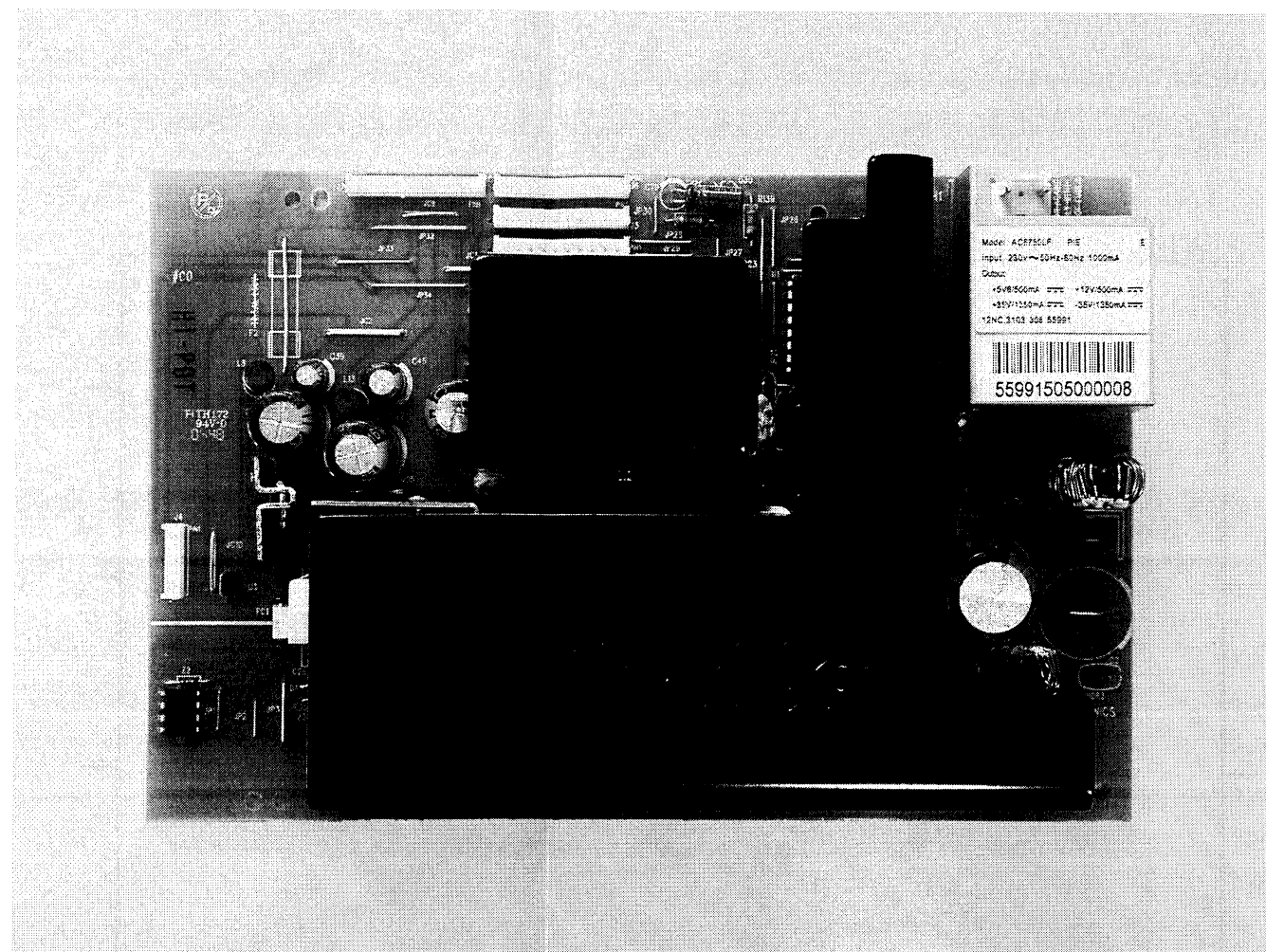
Boards can be ordered with codenumber "3103 308 68331".

1000 A1
1001 A11
1002 D11
1900 B2
1901 A5
1902 B2
2900 C3
2901 C3
2902 C4
2903 F2
2905 F5
2906 F7
2907 E7
2908 F7
2909 E9
2910 G9
2911 F10
2912 F10
2913 D9
2914 C4
3900 B4
3902 C2
3903 D5
3905 G4
3906 F5
3907 E5
3908 G5
3909 E6
3910 E7
3911 G7
3912 B6
3913 C6
3914 E10
3915 B6
3916 C4
3917 G4
3999 F2
5900 A3
5901 E8
5902 F2
5903 G2
5904 F2
6900 C5
6901 E9
6902 B7
6905 E4
6906 E4
6907 G4
6908 G4
6909 G5
6910 F7
6911 F9
6912 E9
6913 D9
6915 F10
6916 F5
7900 C5
7901 F4
7902 F6
7903 F6
9901 G2
F900 A1
F901 B1
F902 A11
F903 B11
F904 C11
F905 C11
F906 C11
F907 D11
F908 D11
F909 B5
F910 D2
F911 E4
F912 G4
F913 D11
F914 G2
F915 C5

1 STANDBY POWER SUPPLY





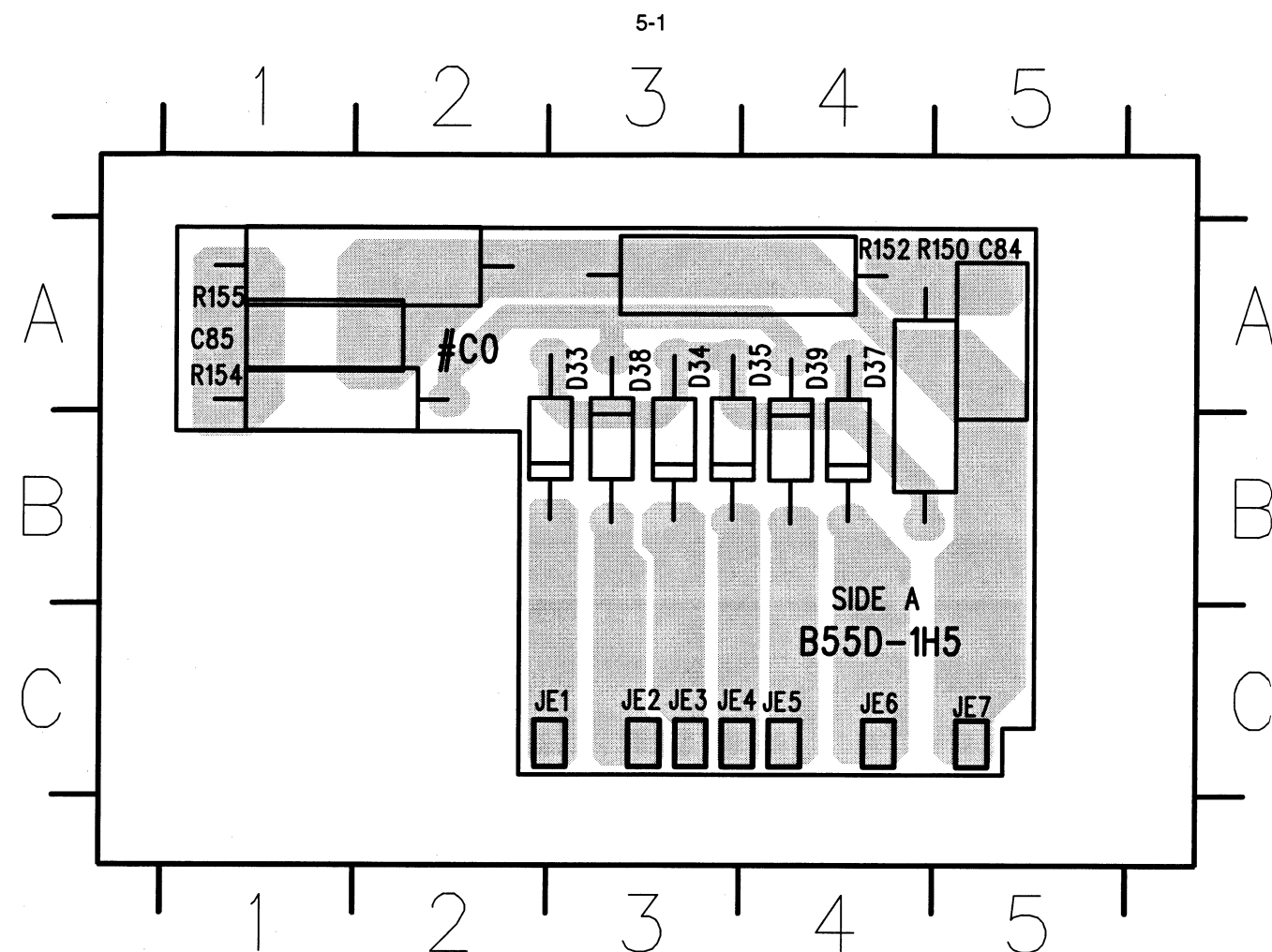


Power Supply AC6750

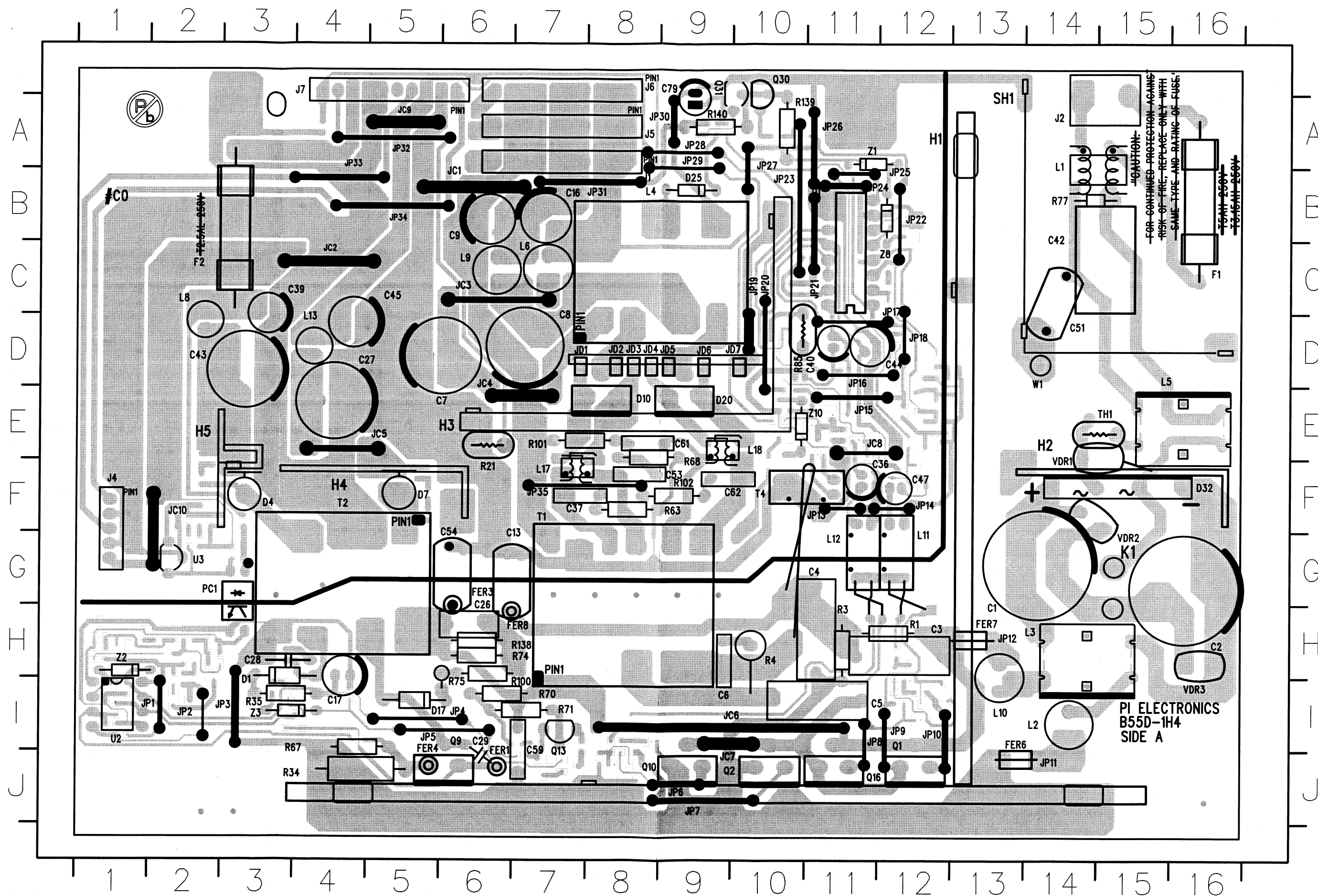
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

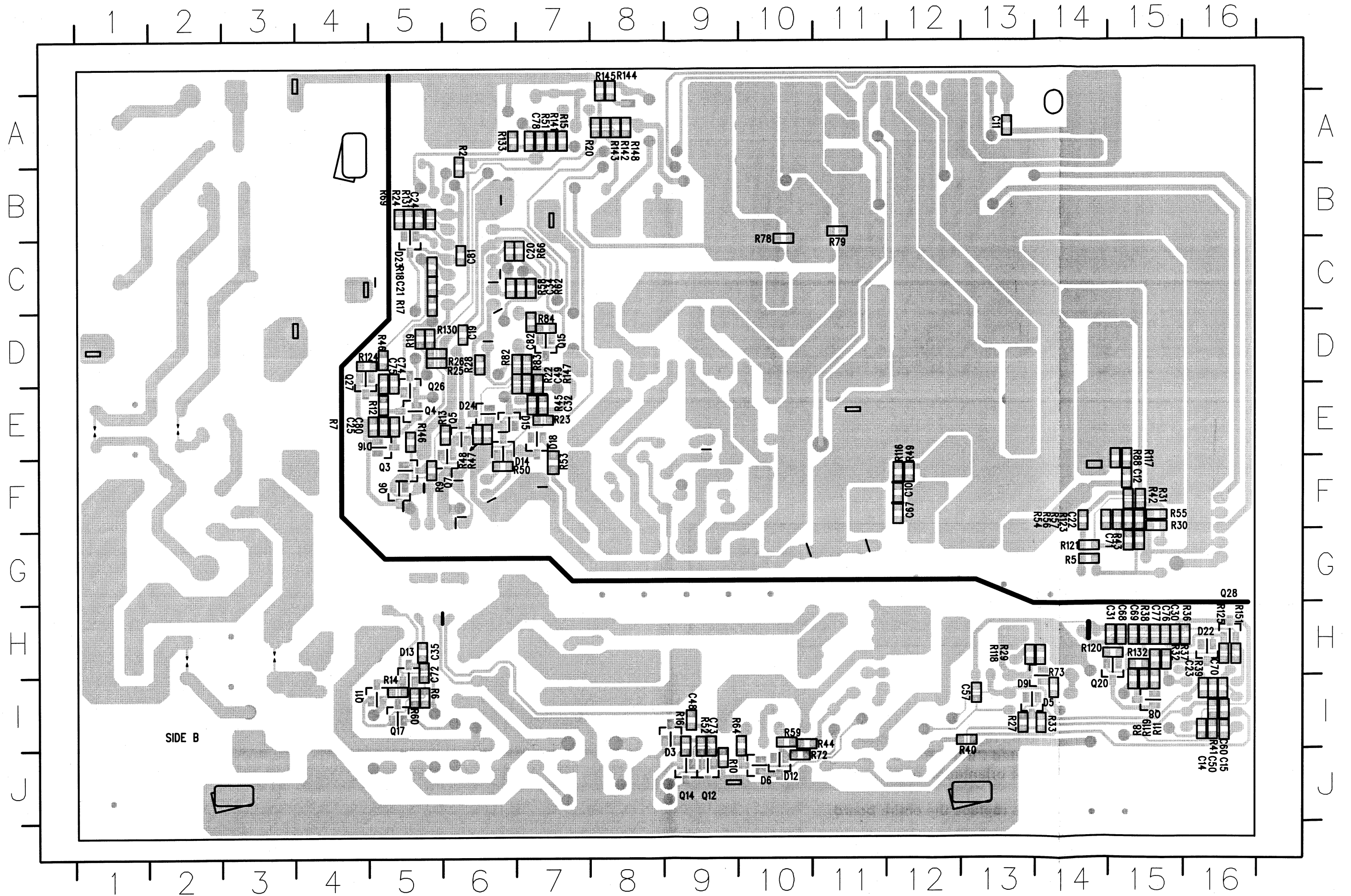
In case of defects please replace the entire board.

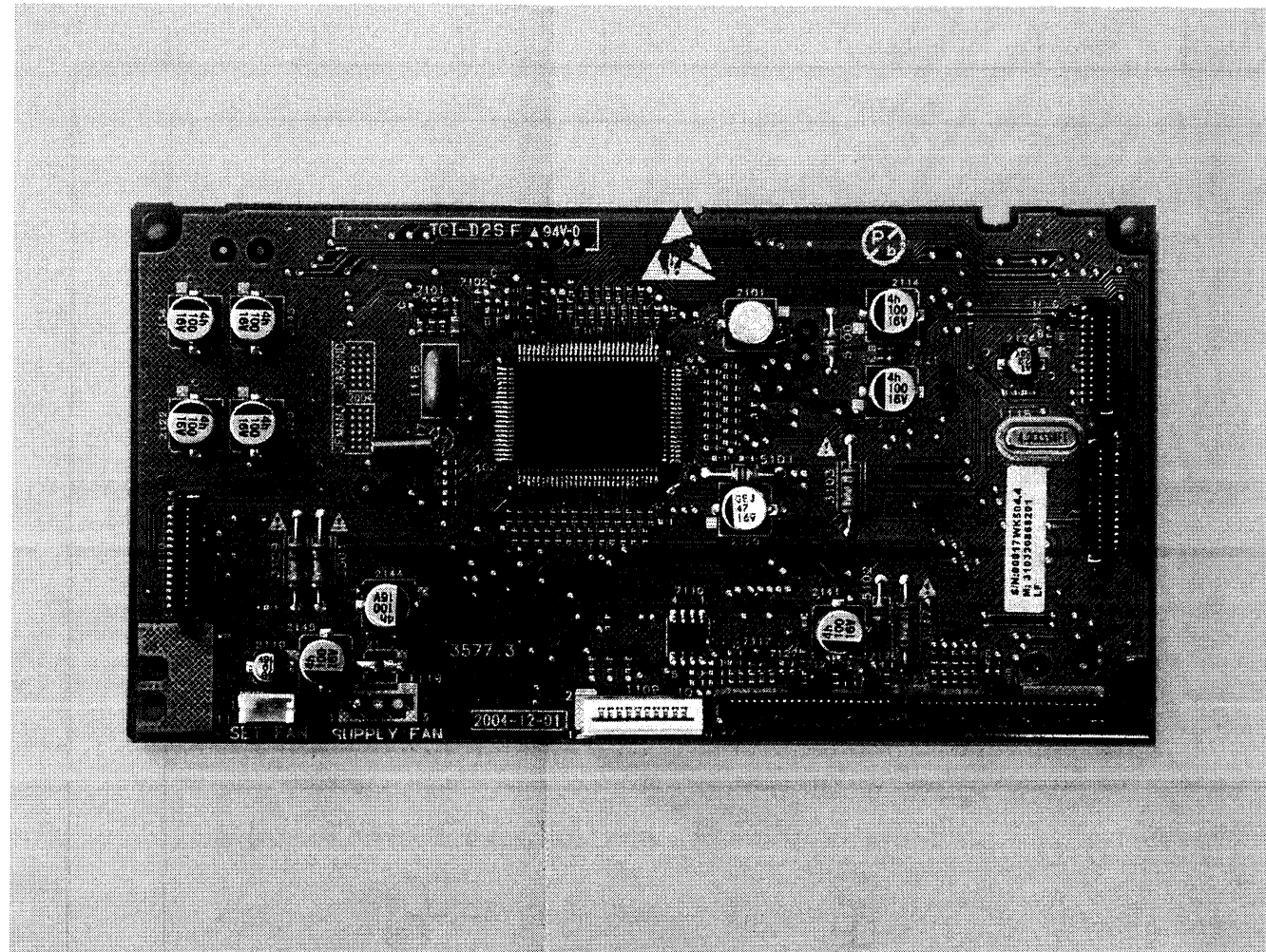
Boards can be ordered with codenumber "3103 308 55991".









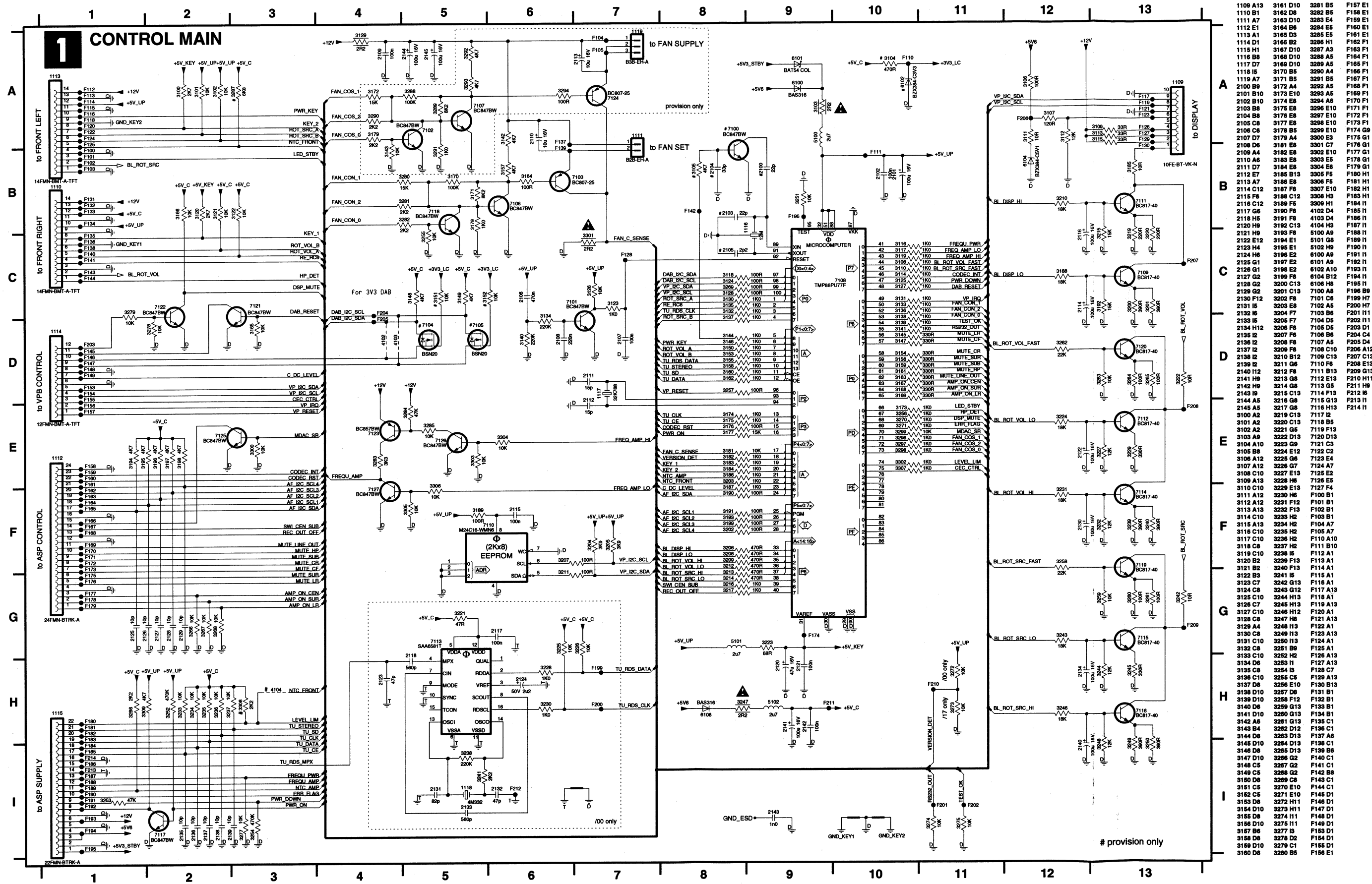


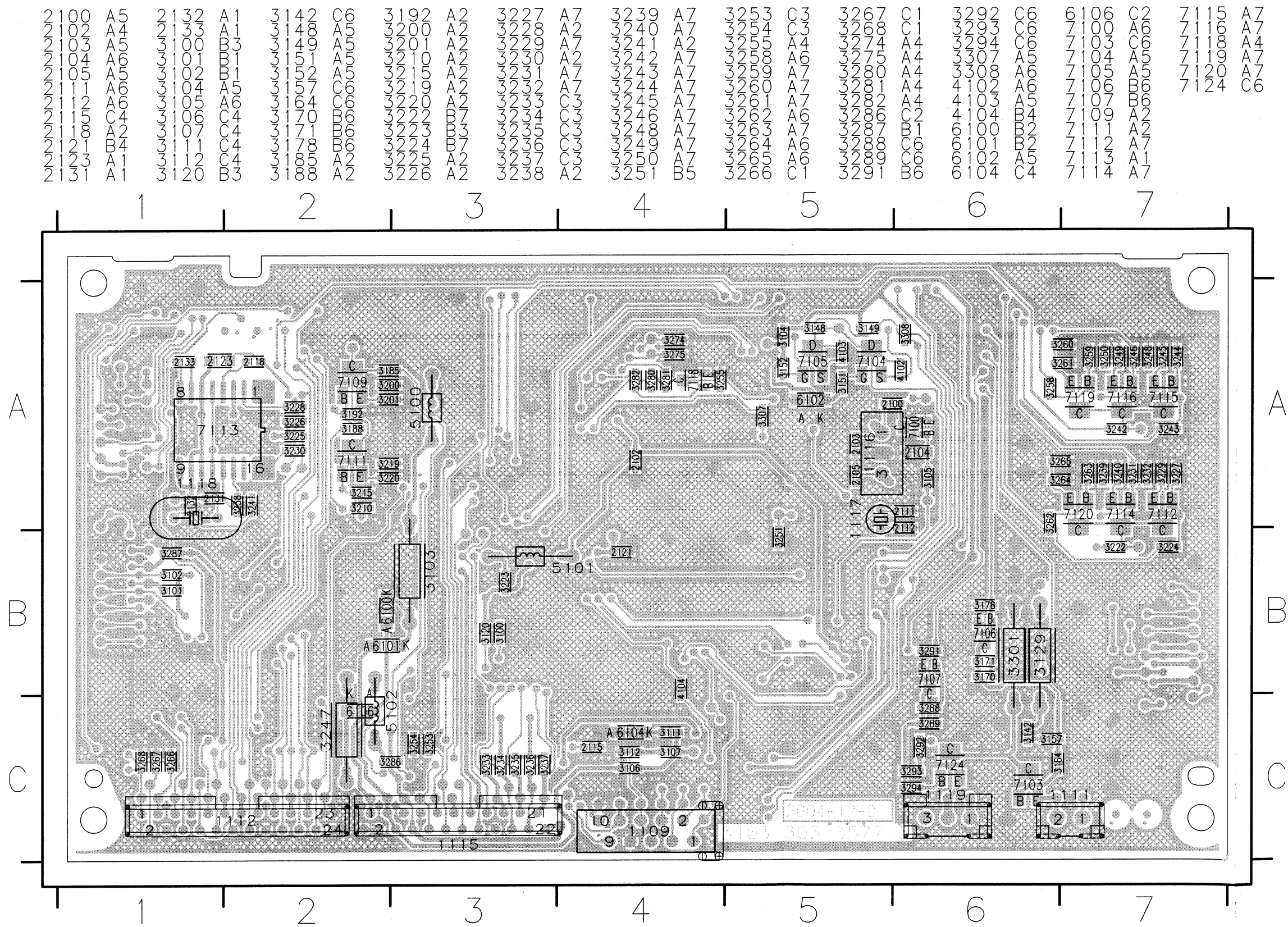
Front Control

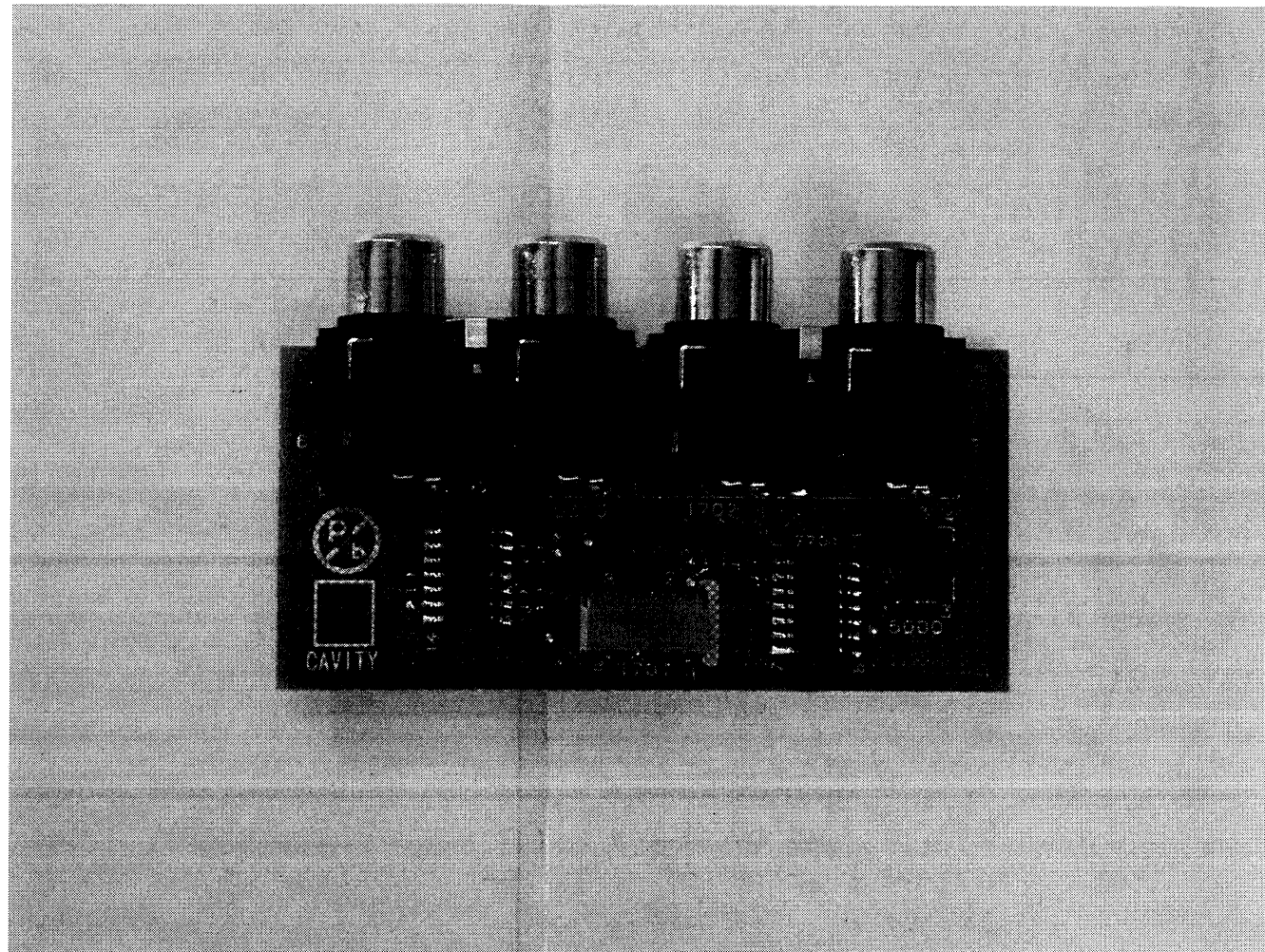
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26719".







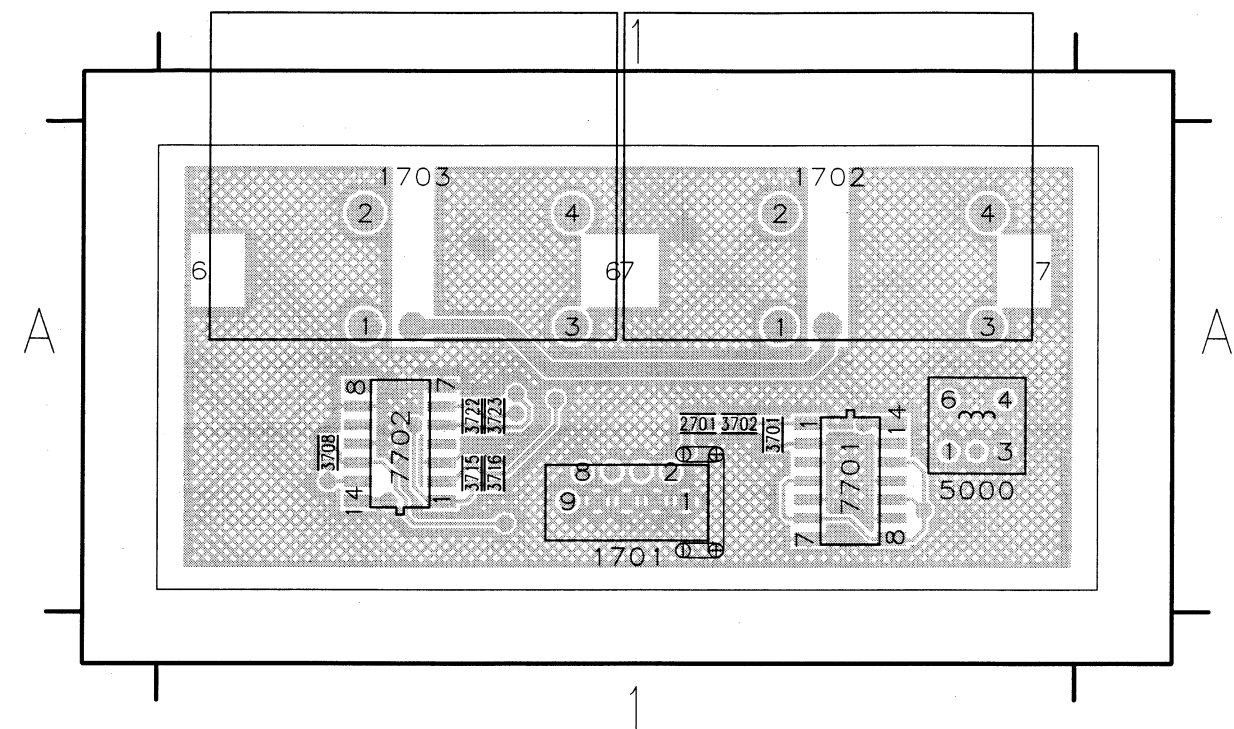
Digital I/O

**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

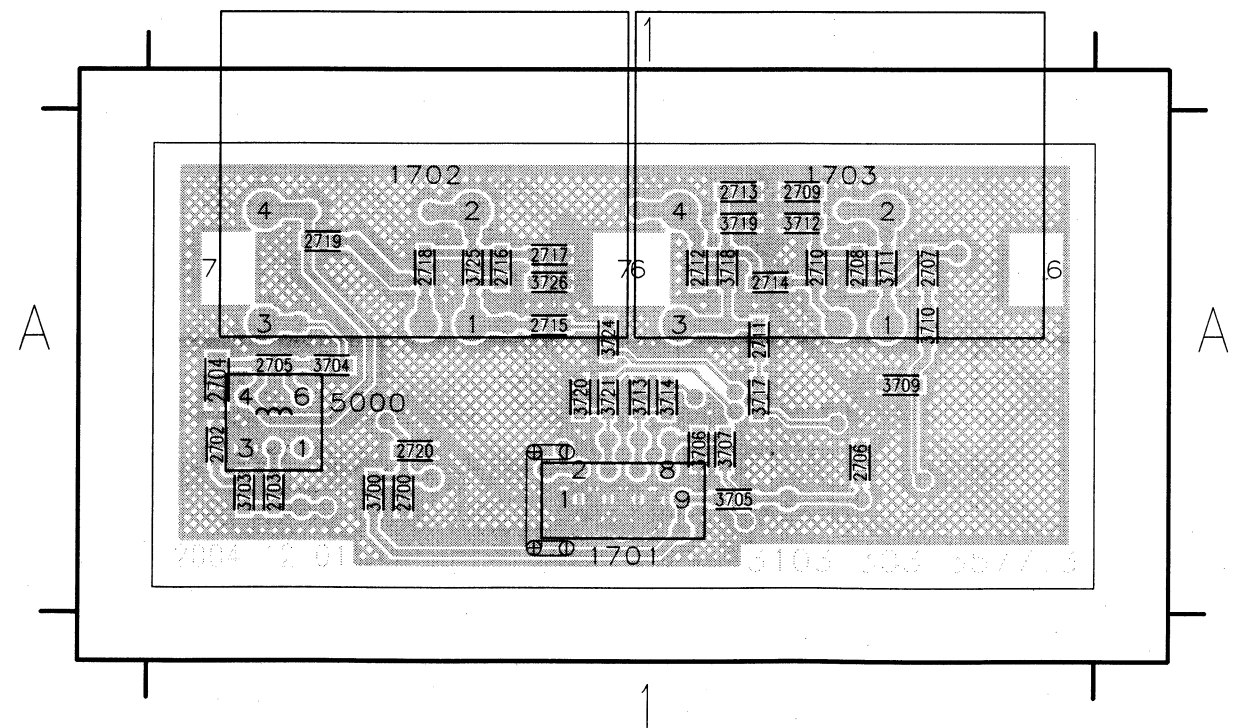
In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26720".

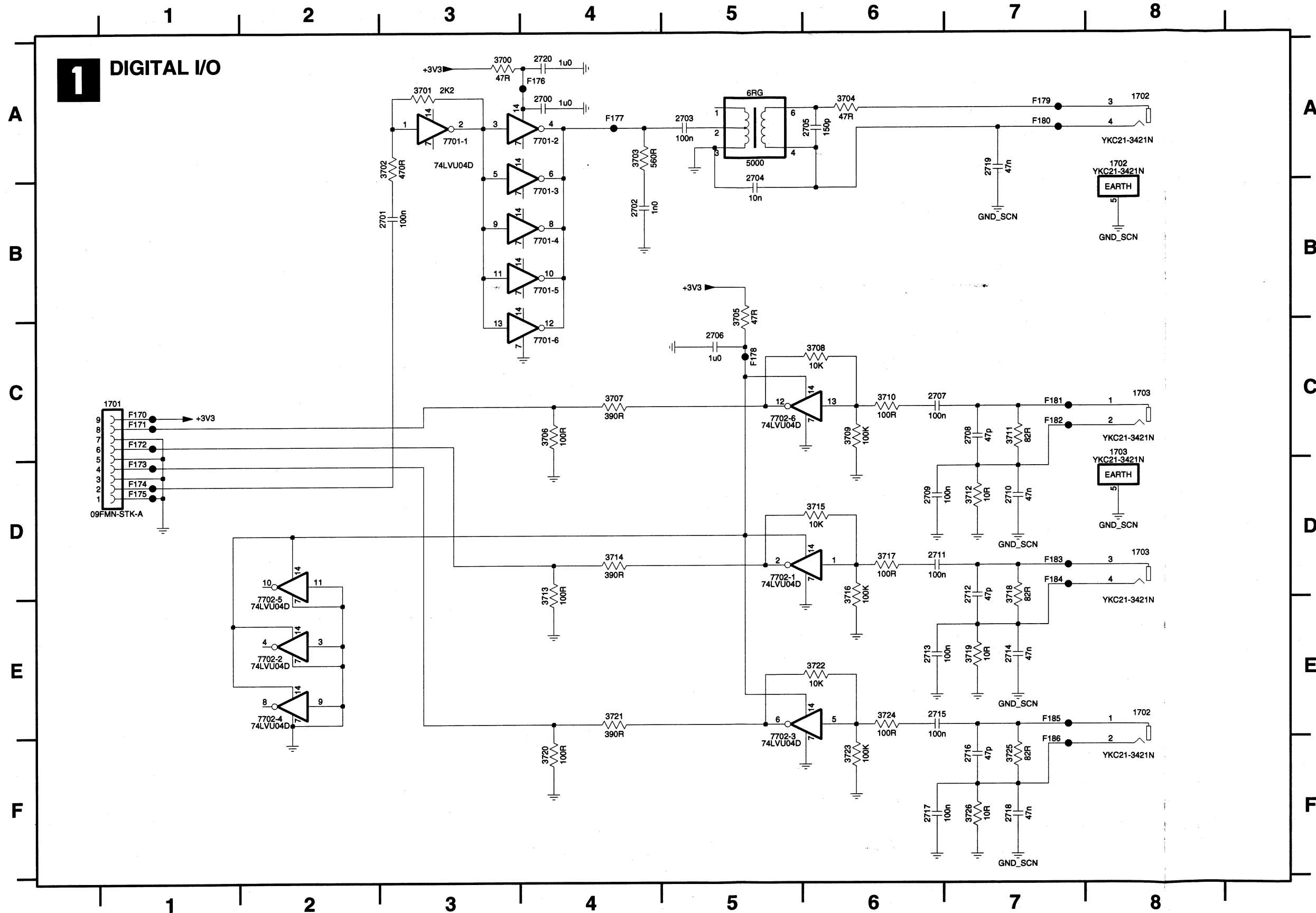
1701 A1	2701 A1	3708 A1	3722 A1	7701 A1
1702 A1	3701 A1	3715 A1	3723 A1	7702 A1
1703 A1	3702 A1	3716 A1	5000 A1	

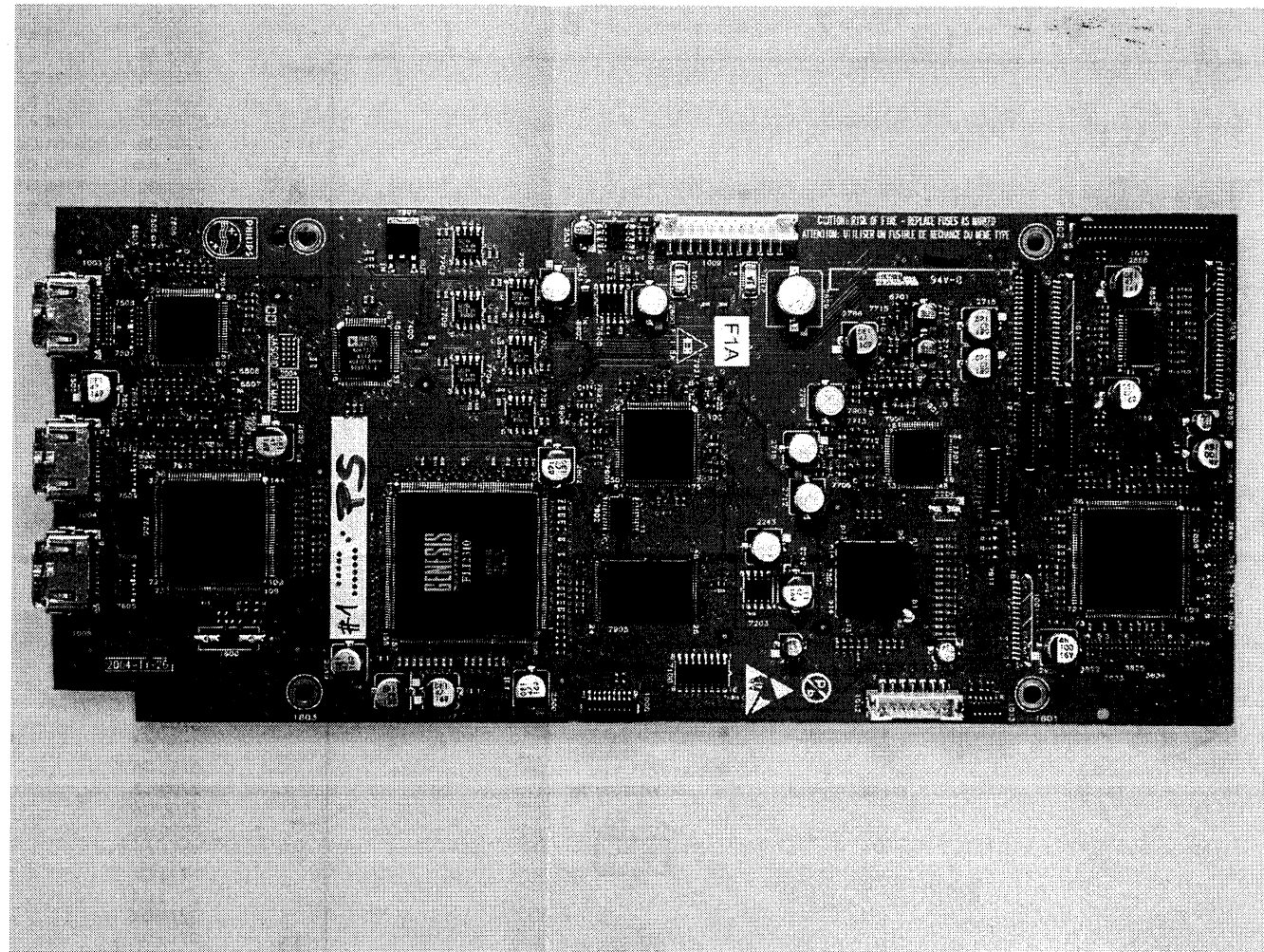


2700 A1	2709 A1	2717 A1	3706 A1	3717 A1
2702 A1	2710 A1	2718 A1	3707 A1	3718 A1
2703 A1	2711 A1	2719 A1	3709 A1	3719 A1
2704 A1	2712 A1	2720 A1	3710 A1	3720 A1
2705 A1	2713 A1	3700 A1	3711 A1	3721 A1
2706 A1	2714 A1	3703 A1	3712 A1	3724 A1
2707 A1	2715 A1	3704 A1	3713 A1	3725 A1
2708 A1	2716 A1	3705 A1	3714 A1	3726 A1



1701 C1
1702 A8
1702 A8
1702 E8
1703 C8
1703 C8
1703 D8
2700 A4
2701 B3
2702 B4
2703 A5
2704 B5
2705 A6
2706 C5
2707 C6
2708 C7
2709 D6
2710 D7
2711 D6
2712 D7
2713 E6
2714 E7
2715 E6
2716 F7
2717 F6
2718 F7
2719 A7
2720 A4
3700 A3
3701 A3
3702 A3
3703 A4
3704 A6
3705 B5
3706 C4
3707 C4
3708 C6
3709 C6
3710 C6
3711 C7
3712 D7
3713 D4
3714 D4
3715 D6
3716 D6
3717 D6
3718 D7
3719 E7
3720 F4
3721 E4
3722 E6
3723 F6
3724 E6
3725 F7
3726 F7
5000 A5
7701-1 A3
7701-2 A4
7701-3 B4
7701-4 B4
7701-5 B4
7701-6 C4
7702-1 D5
7702-2 E2
7702-3 F5
7702-4 E2
7702-5 E2
7702-6 C5
F170 C1
F171 C1
F172 C1
F173 D1
F174 D1
F175 D1
F176 A4
F177 A4
F178 C5
F179 A7
F180 A7
F181 C7
F182 C7
F183 D7
F184 D7
F185 E7
F186 F7



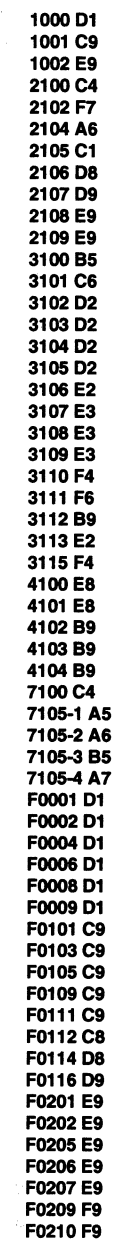


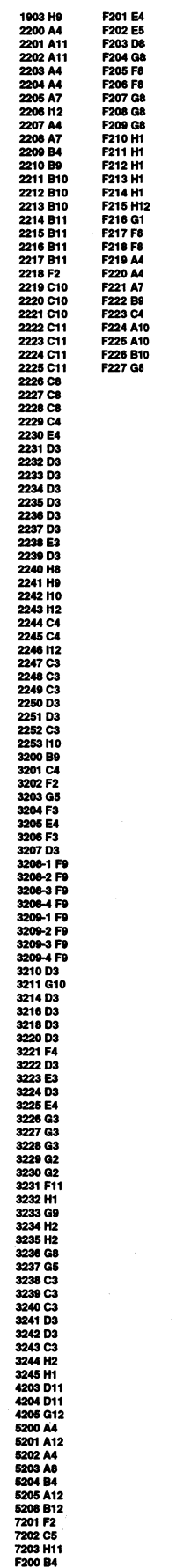
Video Processing Board

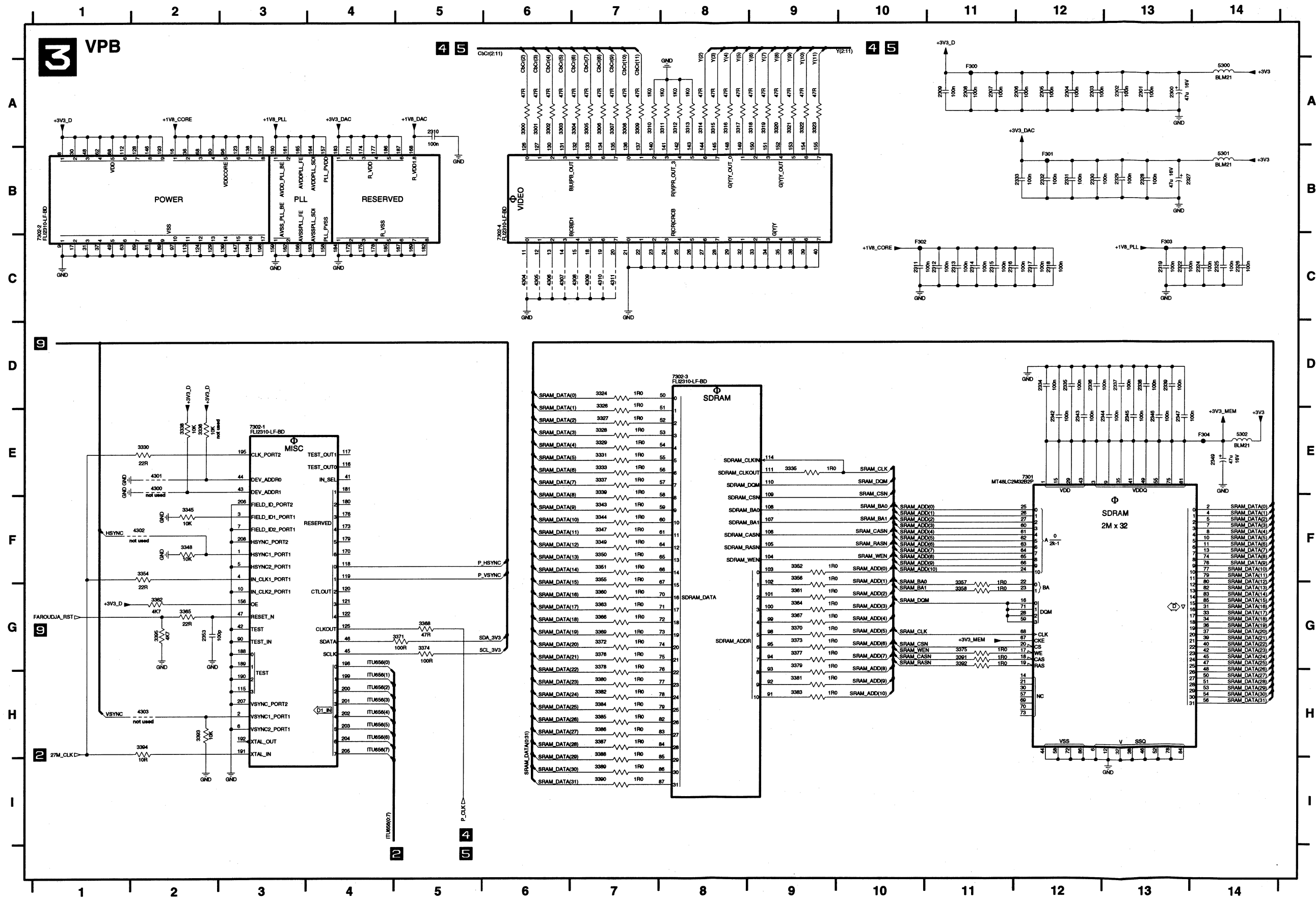
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

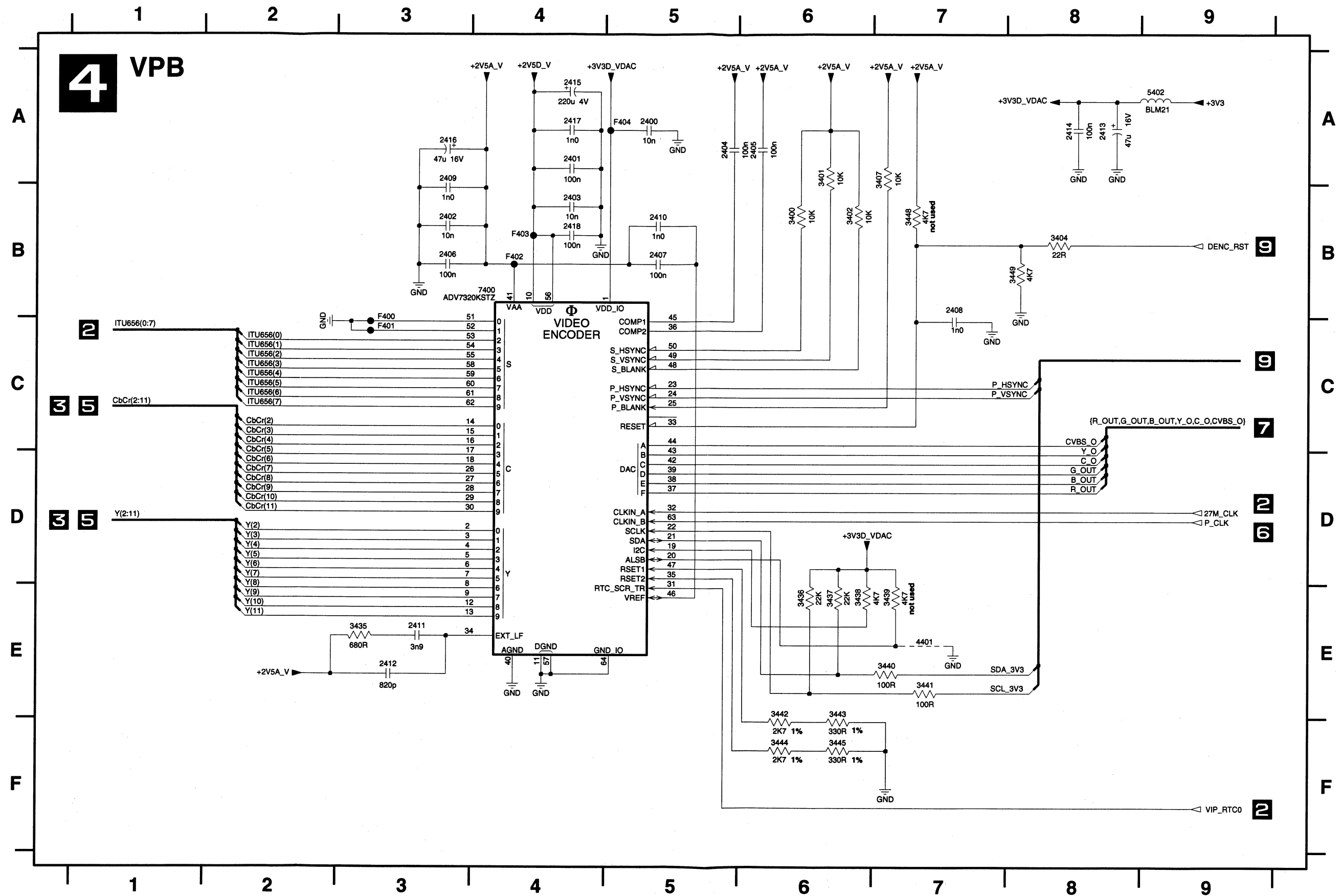
Boards can be ordered with codenumber "3103 608 51512".



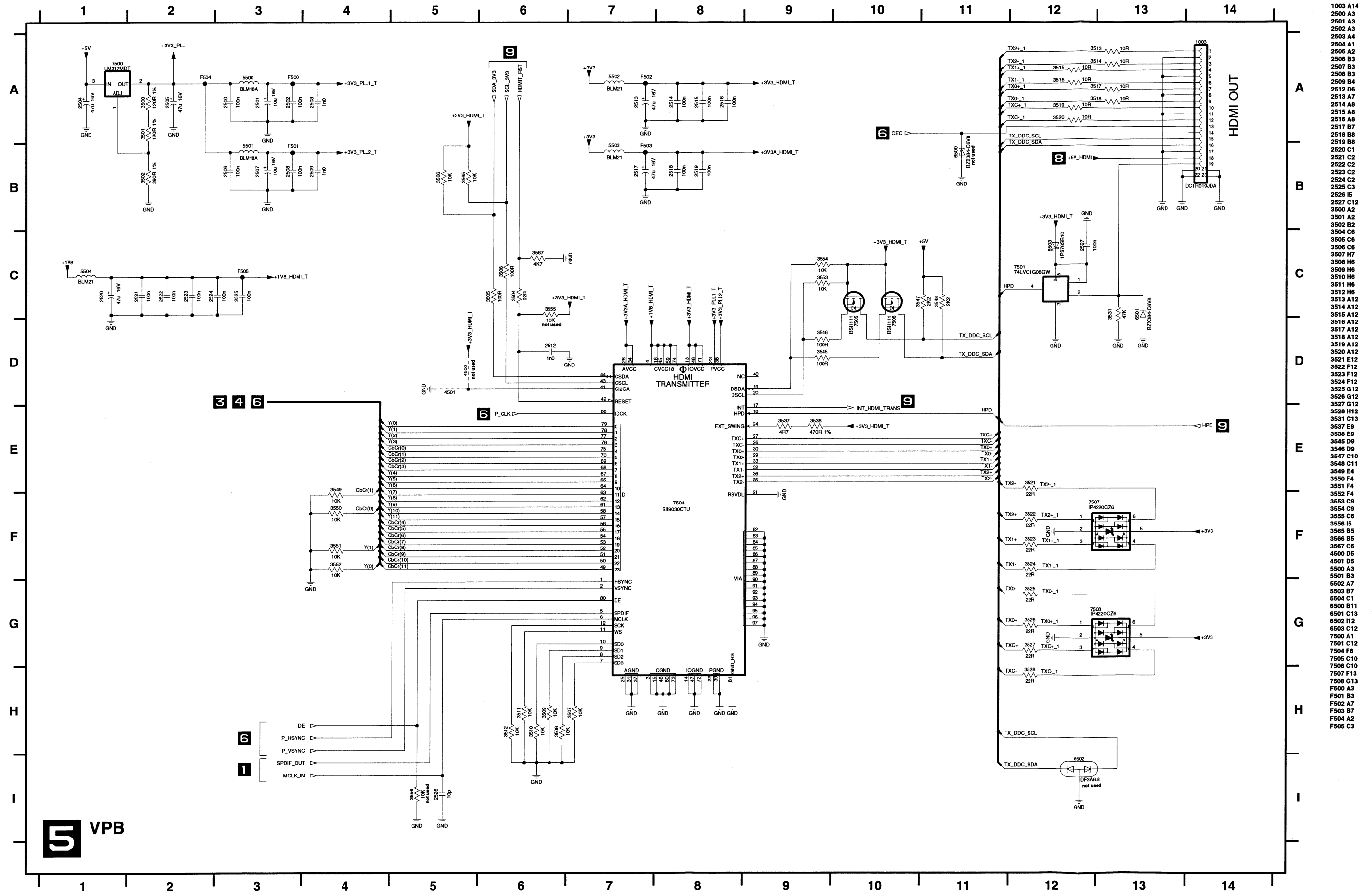


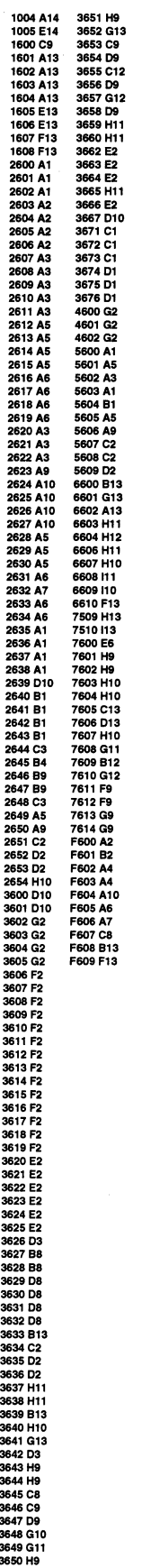


3300 A13
3301 A13
3302 A13
3303 A12
3304 A12
3305 A12
3306 A12
3307 A11
3308 A11
3309 A11
3310 A5
3311 C10
3312 C11
3313 C11
3314 C11
3315 C11
3316 C11
3317 C12
3318 C12
3319 C13
3320 C13
3321 C14
3322 C14
3323 C14
3324 C14
3325 C14
3326 C14
3327 B13
3328 B13
3329 B13
3330 B12
3331 B12
3332 B12
3333 B12
3334 D12
3335 D12
3336 D12
3337 D13
3338 D13
3339 D13
3340 E12
3341 E12
3342 E12
3343 E12
3344 E13
3345 E13
3346 E13
3347 E13
3348 E14
3349 E14
3350 A6
3351 A6
3352 A6
3353 A6
3354 A7
3355 A7
3356 A7
3357 A7
3358 A7
3359 A7
3360 A7
3361 A7
3362 A7
3363 A7
3364 A7
3365 A7
3366 A7
3367 A7
3368 A7
3369 A7
3370 A7
3371 A7
3372 A7
3373 A7
3374 A7
3375 A7
3376 A7
3377 A7
3378 A7
3379 A7
3380 A7
3381 A7
3382 A7
3383 A7
3384 A7
3385 A7
3386 A7
3387 A7
3388 A7
3389 A7
3390 A7
3391 A7
3392 A7
3393 A7
3394 A7
3395 A7
3396 A7
3397 A7
3398 A7
3399 A7
3400 A7
3401 A7
3402 A7
3403 A7
3404 A7
3405 A7
3406 A7
3407 A7
3408 A7
3409 A7
3410 A7
3411 A7
3412 A7
3413 A7
3414 A7
3415 A7
3416 A7
3417 A7
3418 A7
3419 A7
3420 A7
3421 A7
3422 A7
3423 A7
3424 A7
3425 A7
3426 A7
3427 A7
3428 A7
3429 A7
3430 A7
3431 A7
3432 A7
3433 A7
3434 A7
3435 A7
3436 A7
3437 A7
3438 A7
3439 A7
3440 A7
3441 A7
3442 A7
3443 A7
3444 A7
3445 A7
3446 A7
3447 A7
3448 A7
3449 A7
3450 A7
3451 A7
3452 A7
3453 A7
3454 A7
3455 A7
3456 A7
3457 A7
3458 A7
3459 A7
3460 A7
3461 A7
3462 A7
3463 A7
3464 A7
3465 A7
3466 A7
3467 A7
3468 A7
3469 A7
3470 A7
3471 A7
3472 A7
3473 A7
3474 A7
3475 A7
3476 A7
3477 A7
3478 A7
3479 A7
3480 A7
3481 A7
3482 A7
3483 A7
3484 A7
3485 A7
3486 A7
3487 A7
3488 A7
3489 A7
3490 A7
3491 A7
3492 A7
3493 A7
3494 A7
3495 A7
3496 A7
3497 A7
3498 A7
3499 A7
3500 A7
3501 A7
3502 A7
3503 A7
3504 A7
3505 A7
3506 A7
3507 A7
3508 A7
3509 A7
3510 A7
3511 A7
3512 A7
3513 A7
3514 A7
3515 A7
3516 A7
3517 A7
3518 A7
3519 A7
3520 A7
3521 A7
3522 A7
3523 A7
3524 A7
3525 A7
3526 A7
3527 A7
3528 A7
3529 A7
3530 A7
3531 A7
3532 A7
3533 A7
3534 A7
3535 A7
3536 A7
3537 A7
3538 A7
3539 A7
3540 A7
3541 A7
3542 A7
3543 A7
3544 A7
3545 A7
3546 A7
3547 A7
3548 A7
3549 A7
3550 A7
3551 A7
3552 A7
3553 A7
3554 A7
3555 A7
3556 A7
3557 A7
3558 A7
3559 A7
3560 A7
3561 A7
3562 A7
3563 A7
3564 A7
3565 A7
3566 A7
3567 A7
3568 A7
3569 A7
3570 A7
3571 A7
3572 A7
3573 A7
3574 A7
3575 A7
3576 A7
3577 A7
3578 A7
3579 A7
3580 A7
3581 A7
3582 A7
3583 A7
3584 A7
3585 A7
3586 A7
3587 A7
3588 A7
3589 A7
3590 A7
3591 A7
3592 A7
3593 A7
3594 A7
3595 A7
3596 A7
3597 A7
3598 A7
3599 A7
3600 A7
3601 A7
3602 A7
3603 A7
3604 A7
3605 A7
3606 A7
3607 A7
3608 A7
3609 A7
3610 A7
3611 A7
3612 A7
3613 A7
3614 A7
3615 A7
3616 A7
3617 A7
3618 A7
3619 A7
3620 A7
3621 A7
3622 A7
3623 A7
3624 A7
3625 A7
3626 A7
3627 A7
3628 A7
3629 A7
3630 A7
3631 A7
3632 A7
3633 A7
3634 A7
3635 A7
3636 A7
3637 A7
3638 A7
3639 A7
3640 A7
3641 A7
3642 A7
3643 A7
3644 A7
3645 A7
3646 A7
3647 A7
3648 A7
3649 A7
3650 A7
3651 A7
3652 A7
3653 A7
3654 A7
3655 A7
3656 A7
3657 A7
3658 A7
3659 A7
3660 A7
3661 A7
3662 A7
3663 A7
3664 A7
3665 A7
3666 A7
3667 A7
3668 A7
3669 A7
3670 A7
3671 A7
3672 A7
3673 A7
3674 A7
3675 A7
3676 A7
3677 A7
3678 A7
3679 A7
3680 A7
3681 A7
3682 A7
3683 A7
3684 A7
3685 A7
3686 A7
3687 A7
3688 A7
3689 A7
3690 A7
3691 A7
3692 A7
3693 A7
3694 A7
3695 A7
3696 A7
3697 A7
3698 A7
3699 A7
3700 A7
3701 A7
3702 A7
3703 A7
3704 A7
3705 A7
3706 A7
3707 A7
3708 A7
3709 A7
3710 A7
3711 A7
3712 A7
3713 A7
3714 A7
3715 A7
3716 A7
3717 A7
3718 A7
3719 A7
3720 A7
3721 A7
3722 A7
3723 A7
3724 A7
3725 A7
3726 A7
3727 A7
3728 A7
3729 A7
3730 A7
3731 A7
3732 A7
3733 A7
3734 A7
3735 A7
3736 A7
3737 A7
3738 A7
3739 A7
3740 A7
3741 A7
3742 A7
3743 A7
3744 A7
3745 A7
3746 A7
3747 A7
3748 A7
3749 A7
3750 A7
3751 A7
3752 A7
3753 A7
3754 A7
3755 A7
3756 A7
3757 A7
3758 A7
3759 A7
3760 A7
3761 A7
3762 A7
3763 A7
3764 A7
3765 A7
3766 A7
3767 A7
3768 A7
3769 A7
3770 A7
3771 A7
3772 A7
3773 A7
3774 A7
3775 A7
3776 A7
3777 A7
3778 A7
3779 A7
3780 A7
3781 A7
3782 A7
3783 A7
3784 A7
3785 A7
3786 A7
3787 A7
3788 A7
3789 A7
3790 A7
3791 A7
3792 A7
3793 A7
3794 A7
3795 A7
3796 A7
3797 A7
3798 A7
3799 A7
3800 A7
3801 A7
3802 A7
3803 A7
3804 A7
3805 A7
3806 A7
3807 A7
3808 A7
3809 A7
3810 A7
3811 A7
3812 A7
3813 A7
3814 A7
3815 A7
3816 A7
3817 A7
3818 A7
3819 A7
3820 A7
3821 A7
3822 A7
3823 A7
3824 A7
3825 A7
3826 A7
3827 A7
3828 A7
3829 A7
3830 A7
3831 A7
3832 A7
3833 A7
3834 A7
3835 A7
3836 A7
3837 A7
3838 A7
3839 A7
3840 A7
3841 A7
3842 A7
3843 A7
3844 A7
3845 A7
3846 A7
3847 A7
3848 A7
3849 A7
3850 A7
3851 A7
3852 A7
3853 A7
3854 A7
3855 A7
3856 A7
3857 A7
3858 A7
3859 A7
3860 A7
3861 A7
3862 A7
3863 A7
3864 A7
3865 A7
3866 A7
3867 A7
3868 A7
3869 A7
3870 A7
3871 A7
3872 A7
3873 A7
3874 A7
3875 A7
3876 A7
3877 A7
3878 A7
3879 A7
3880 A7
3881 A7
3882 A7
3883 A7
3884 A7
3885 A7
3886 A7
3887 A7
3888 A7
3889 A7
3890 A7
3891 A7
3892 A7
3893 A7
3894 A7
3895 A7
3896 A7
3897 A7
3898 A7
3899 A7
3900 A7
3901 A7
3902 A7
3903 A7
3904 A7
3905 A7
3906 A7
3907 A7
3908 A7
3909 A7
3910 A7
3911 A7
3912 A7
3913 A7
3914 A7
3915 A7
3916 A7
3917 A7
3918 A7
3919 A7
3920 A7
3921 A7
3922 A7
3923 A7
3924 A7
3925 A7
3926 A7
3927 A7
3928 A7
3929 A7
3930 A7
3931 A7
3932 A7
3933 A7
3934 A7
3935 A7
3936 A7
3937 A7
3938 A7
3939 A7
3940 A7
3941 A7
3942 A7
3943 A7
3944 A7
3945 A7
3946 A7
3947 A7
3948 A7
3949 A7
3950 A7
3951 A7
3952 A7
3953 A7
3954 A7
3955 A7
3956 A7
3957 A7
3958 A7
3959 A7
3960 A7
3961 A7
3962 A7
3963 A7
3964 A7
3965 A7
3966 A7
3967 A7
3968 A7
3969 A7
3970 A7
3971 A7
3972 A7
3973 A7
3974 A7
3975 A7
3976 A7
3977 A7
3978 A7
3979 A7
3980 A7
3981 A7
3982 A7
3983 A7
3984 A7
3985 A7
3986 A7
3987 A7
3988 A7
3989 A7
3990 A7
3991 A7
3992 A7
3993 A7
3994 A7
3995 A7
3996 A7
3997 A7
3998 A7
3999 A7
4000 A7

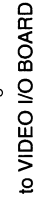


2400 A5
2401 A4
2402 B3
2403 B4
2404 A5
2405 A6
2406 B3
2407 B5
2408 B7
2409 A3
2410 B5
2411 E3
2412 E3
2413 A8
2414 A8
2415 A4
2416 A3
2417 A4
2418 B4
3400 B6
3401 A6
3402 B6
3404 B8
3407 A7
3435 E3
3436 E6
3437 E6
3438 E6
3439 E7
3440 E7
3441 E7
3442 E6
3443 E6
3444 F6
3445 F6
3448 B7
3449 B8
4401 E7
5402 A9
7400 B4
F400 C3
F401 C3
F402 B4
F403 B4
F404 A5



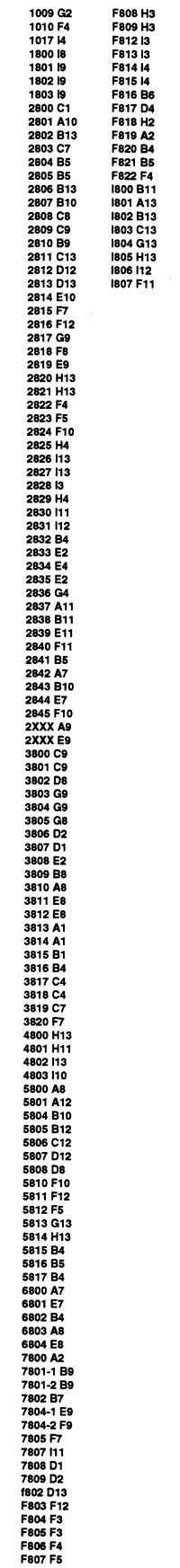


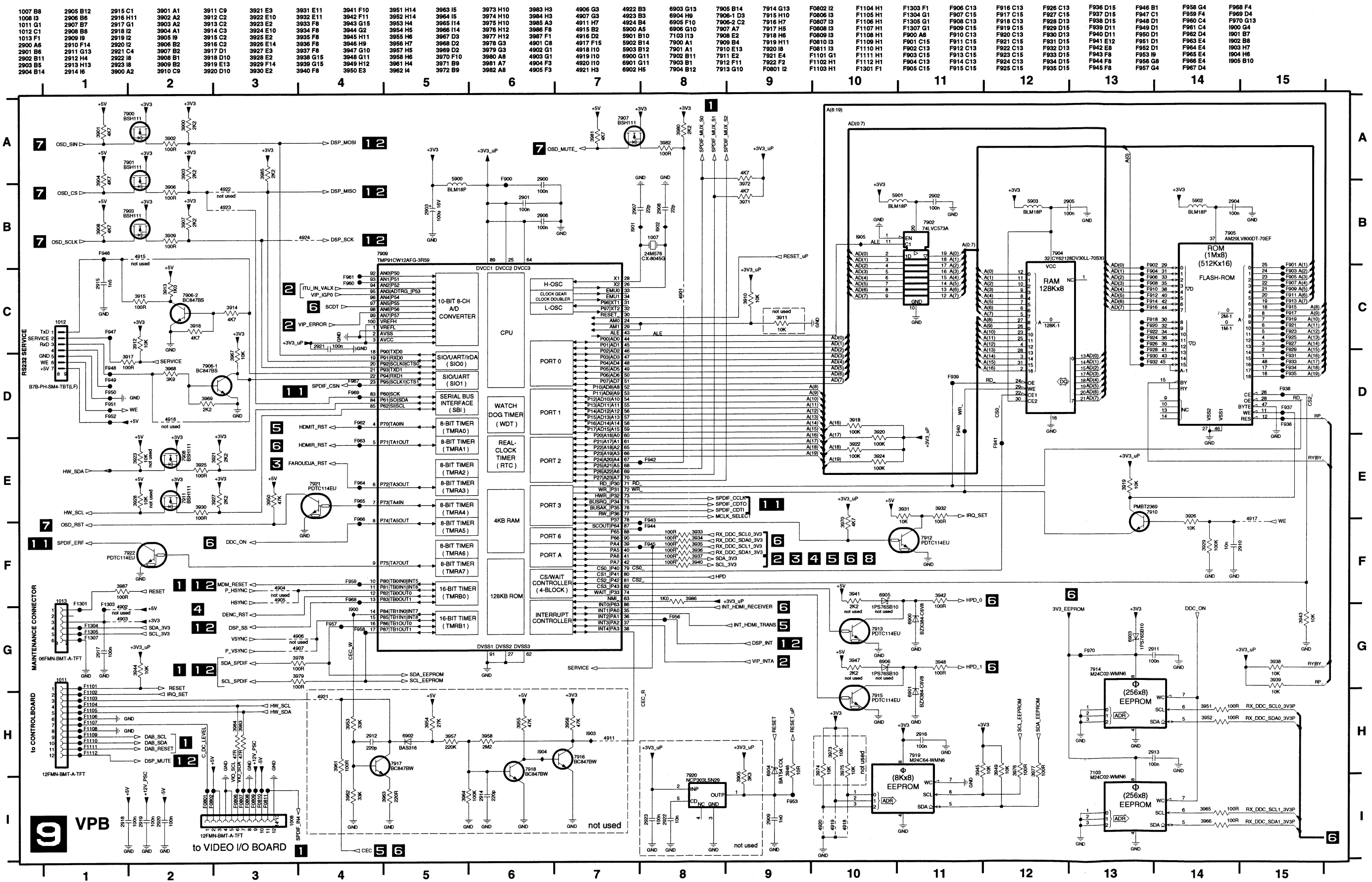
1004 A14	3651 H9
1005 A14	3652 G3
1600 C9	3653 C9
1601 A13	3654 D9
1602 A13	3655 C12
1603 A13	3656 D9
1604 A13	3657 G12
1605 E13	3658 D9
1606 E13	3659 H11
1607 F13	3660 H11
1608 F13	3662 E2
2600 A1	3663 E2
2601 A1	3664 E2
2602 A1	3665 H11
2603 A2	3666 E2
2604 A2	3667 D10
2605 A2	3671 C1
2606 A2	3672 C1
2607 A3	3673 C1
2608 A3	3674 D1
2609 A3	3675 D1
2610 A3	3676 D1
2611 A3	4600 G2
2612 A5	4601 G2
2613 A5	4602 G2
2614 A5	5600 A1
2615 A5	5601 A5
2616 A6	5602 A3
2617 A6	5603 A1
2618 A6	5604 B1
2619 A6	5605 A5
2620 A3	5606 A9
2621 A3	5607 C2
2622 A3	5608 E2
2623 A9	5609 D2
2624 A10	6600 B13
2625 A10	6601 G13
2626 A10	6602 A13
2627 A10	6603 H11
2628 A5	6604 H12
2629 A5	6605 H11
2630 A5	6607 H10
2631 A6	6608 H11
2632 A7	6609 H10
2633 A9	6610 F13
2634 A6	7509 B13
2635 A1	7510 H13
2636 A1	7600 E6
2637 A1	7601 H9
2638 A1	7602 H9
2639 D10	7603 H10
2640 B1	7604 H10
2641 B1	7605 C13
2642 B1	7606 D13
2643 B1	7607 H10
2644 C3	7608 G11
2645 B4	7609 B12
2646 B9	7610 G12
2647 B9	7611 F9
2648 C3	7612 F9
2649 A5	7613 G9
2650 A9	7614 G9
2651 C2	F600 A2
2652 D2	F601 B2
2653 D2	F602 A4
2654 H10	F603 A4
2655 D10	F604 A10
2656 D10	F605 A6
2660 G2	F606 A7
2663 G2	F607 B3
2664 G2	F608 C13
2665 G2	F609 F13
3605 F2	
3607 F2	
3608 F2	
3609 F2	
3610 F2	
3611 F2	
3612 F2	
3613 F2	
3614 F2	
3615 F2	
3616 F2	
3617 F2	
3618 F2	
3619 F2	
3620 E2	
3621 E2	
3622 E2	
3623 E2	
3624 E2	
3625 E2	
3626 D3	
3627 B8	
3628 B8	
3629 D8	
3630 D8	
3631 D8	
3632 D8	
3633 B13	
3634 C2	
3635 D2	
3636 D2	
3637 H11	
3638 H11	
3639 B13	
3640 H10	
3641 G13	
3642 D3	
3643 H9	
3644 H8	
3645 C8	
3646 C9	
3647 D9	
3648 G10	
3649 G11	
3650 H9	

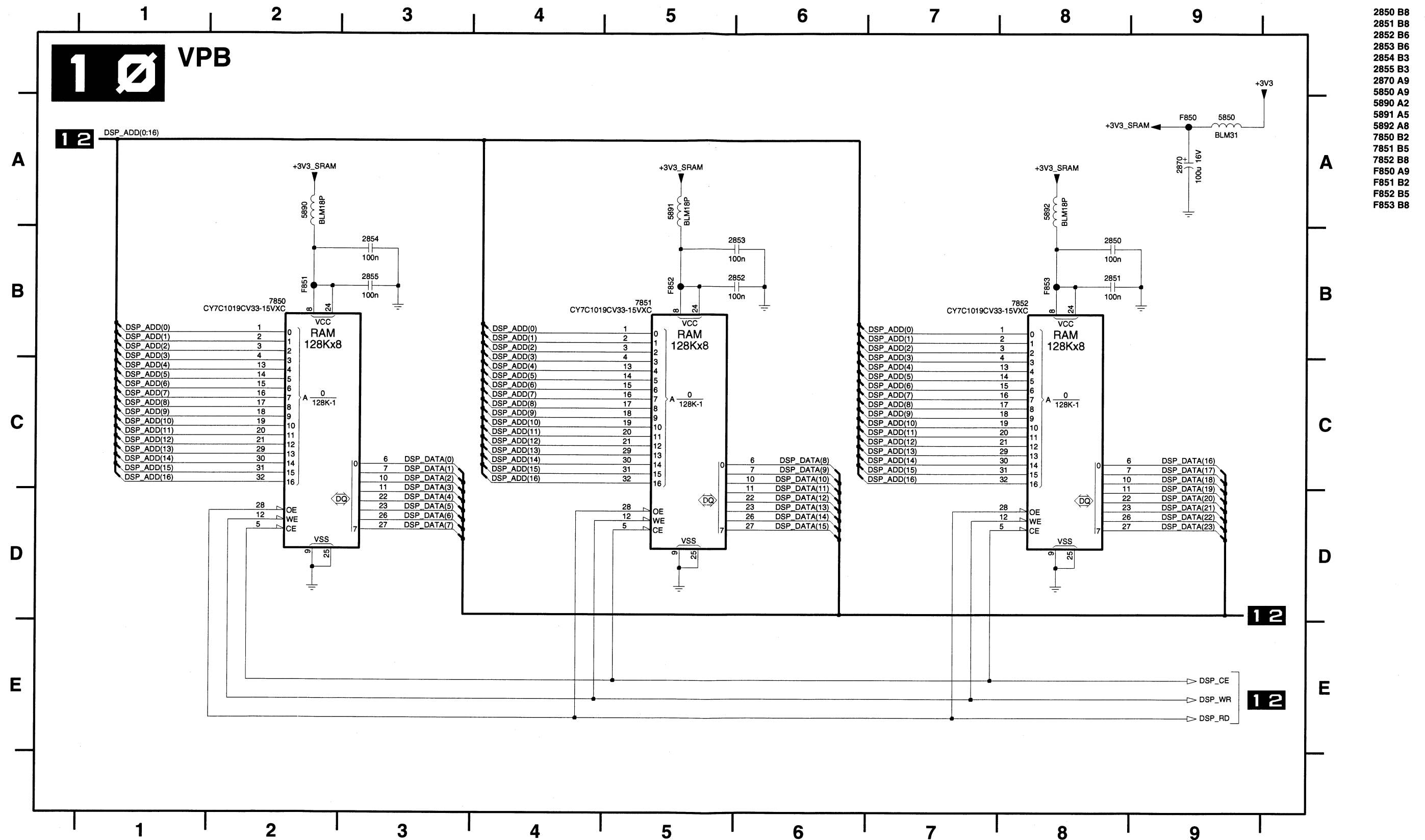


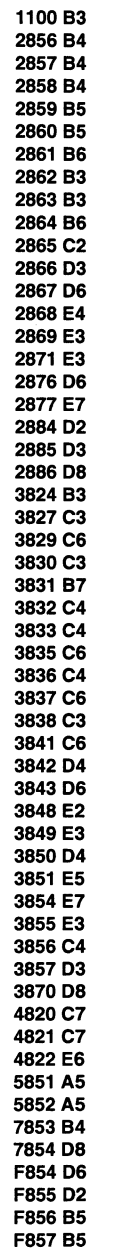
REF	PAL	NTSC
1905	17M73447 2422 543 01199	14M31818 2422 543 01198

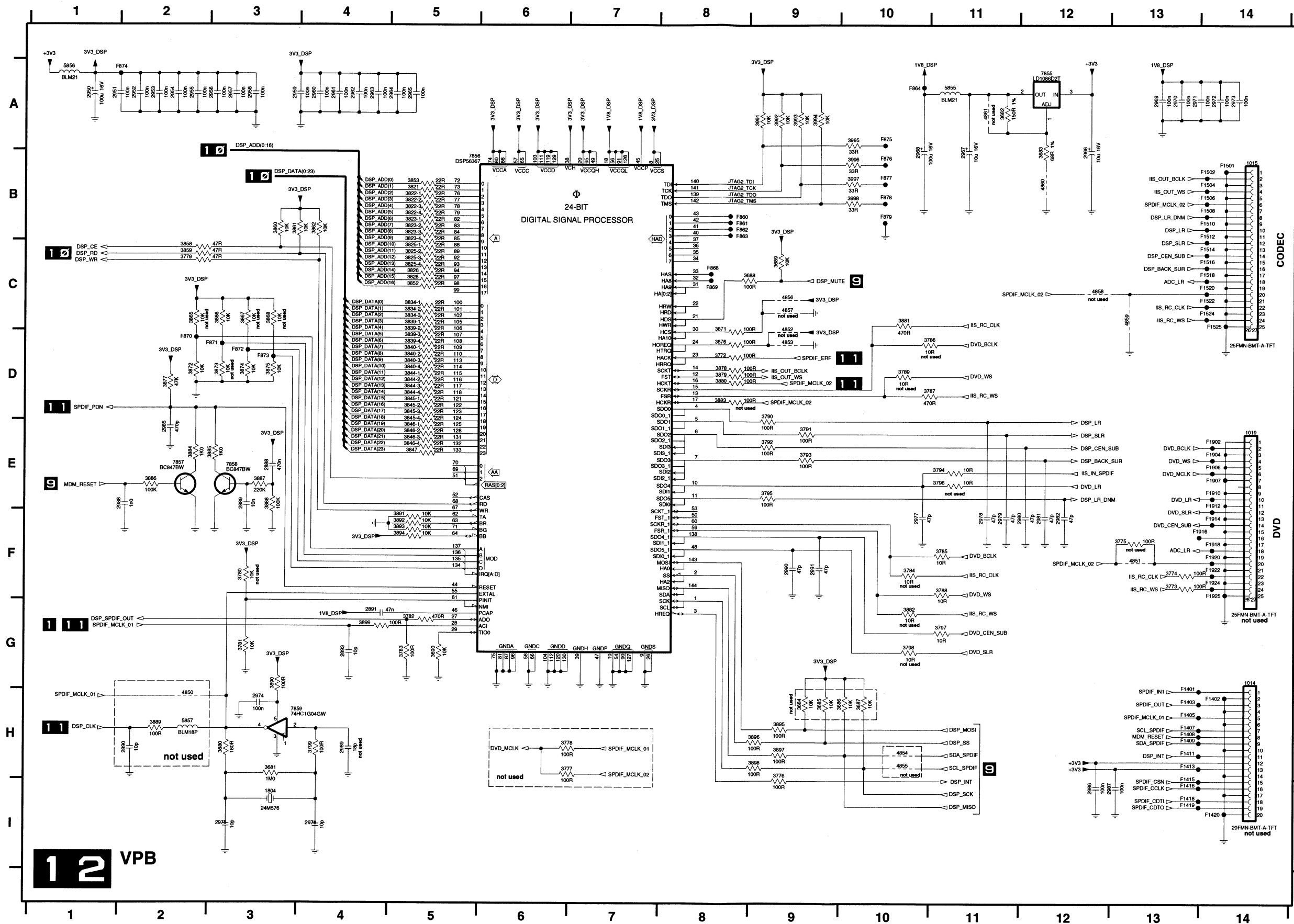
1906 A14	3735 B1
1905 E4	3736 E9
2700 A5	3737 B2
2701 A5	3738 F8
2702 A5	3739 F10
2704 A5	3740 H1
2705 A5	3741 G6
2707 D9	3742 G3
2708 H4	3743 G6
2709 C3	3744 G7
2710 D9	3745 H11
2711 H7	3746 D6
2712 B3	3747 D6
2713 F7	3748 D6
2714 G6	3749 D6
2715 C7	3750 G4
2716 B3	3751 H4
2717 D6	3754 D9
2718 E5	3755 D10
2719 H9	3756 D8
2720 E5	3757 B9
2721 E5	3758 B10
2722 D3	3759 B8
2723 H4	3760 C8
2724 H9	3761 C9
2725 H10	3762 C10
2726 A5	3763 G4
2729 G9	3764 E5
2730 G9	3765 A2
2731 G10	3766 B2
2734 E9	3767 H6
2735 F9	3768 H6
2736 F10	3769 C2
2737 D2	3770 D7
2738 D2	3771 I1
2742 D3	4701 C13
2743 D14	4702 F13
2745 E4	4703 D13
2746 E4	4704 G13
2747 E4	4705 G4
2748 F4	4708 H4
2749 F14	4710 C14
2750 F14	4711 B4
2753 I6	4712 B4
2754 B3	5702 D5
2757 D9	5705 H10
2758 D10	5706 H10
2759 B9	5705 G10
2760 B10	5706 G10
2761 B9	5707 E10
2762 B9	5708 E10
2763 C9	5709 E13
2764 C9	5710 G13
2765 C9	5711 C13
2766 C10	5713 E4
2767 B3	5714 F13
2768 D2	5717 D10
2769 D3	5718 D10
2770 F9	5719 B10
2771 H2	5720 B10
2772 H9	5721 C10
2773 B11	5722 C10
2774 B11	6700 F6
2775 C11	6701 D6
2776 C11	7701 D8
2777 D11	7702 D11
2778 D11	7703 H8
2779 E11	7703 D2 H11
2780 F11	7704 C8
2781 G11	7704 D2 C11
2782 G11	7705 L8
2783 H12	7706 D11
2784 H12	7707 A2
2785 D14	7707 E2
2786 I10	7708 B8
2787 I10	7708 D2 B11
2788 E14	7709 E8
2789 E14	7709 D2 E11
2790 H14	7710 H6
2791 H14	7711 F6
3693 I12	7712 B2
3694 H12	7713 C2
3695 G12	7715 C6
3696 G12	F0001 A13
3697 F12	F0002 B13
3698 F12	F0003 A13
3699 A8	F0005 A13
3700 A6	F0007 A13
3701 A6	F0009 A13
3702 A6	F0012 A13
3703 C3	F0014 B13
3704 A6	F0016 B13
3705 C4	F0018 B13
3706 A6	F0020 B13
3707 A3	F0022 B13
3708 B4	F700 E1
3709 H3	F701 E1
3710 H6	F702 E1
3711 B4	F703 F1
3712 H6	F704 F1
3713 H7	F705 F1
3714 F7	F706 F3
3715 B3	F707 G4
3716 D2	F708 C14
3717 H5	F709 F14
3718 D12	F710 E9
3719 D5	F711 D2
3720 E11	F712 E14
3721 H12	F713 G14
3722 H9	
3723 H8	
3724 H10	
3725 H12	
3726 C12	
3727 I10	
3728 C11	
3729 D12	
3730 G8	
3731 G8	
3732 G10	
3733 G11	
3734 B12	



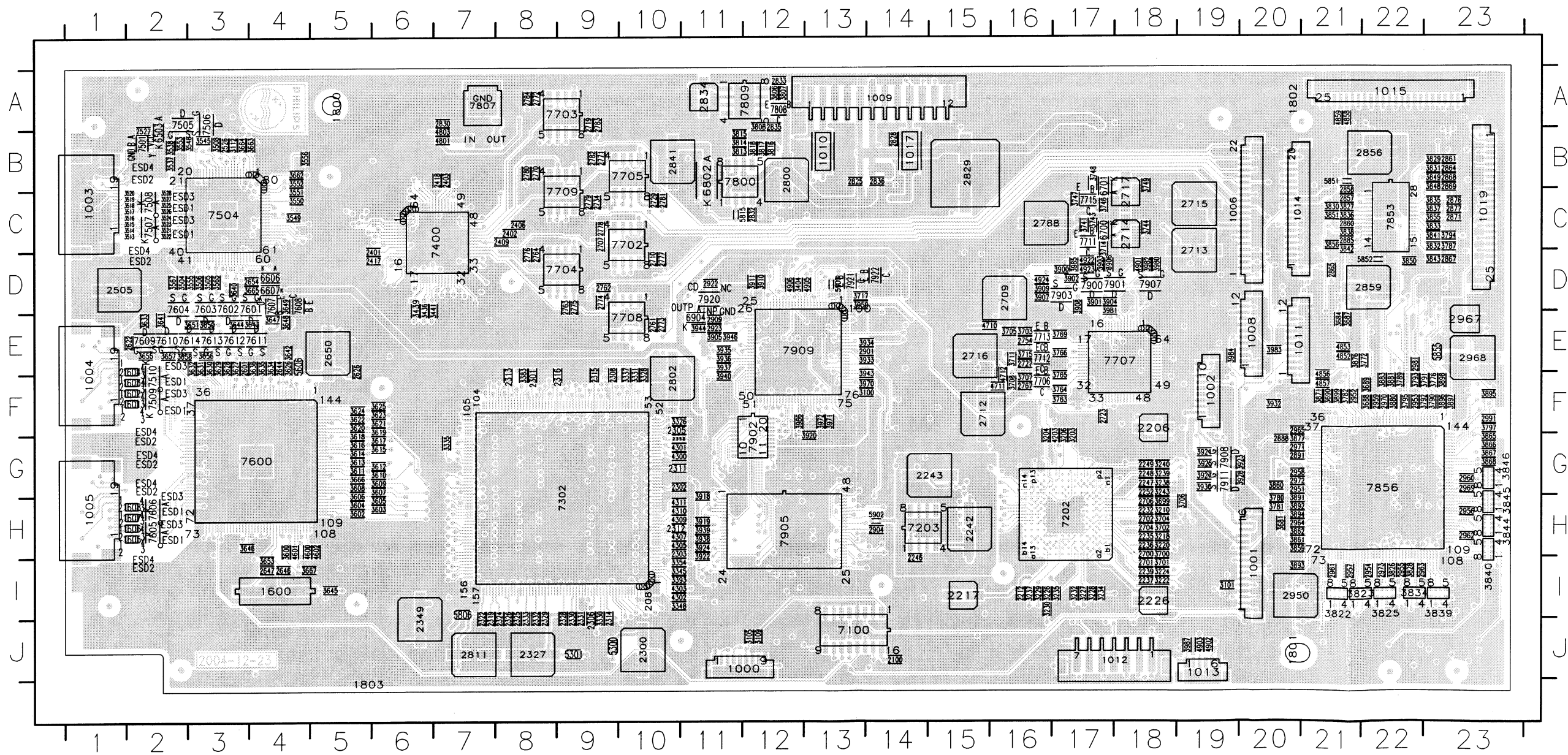


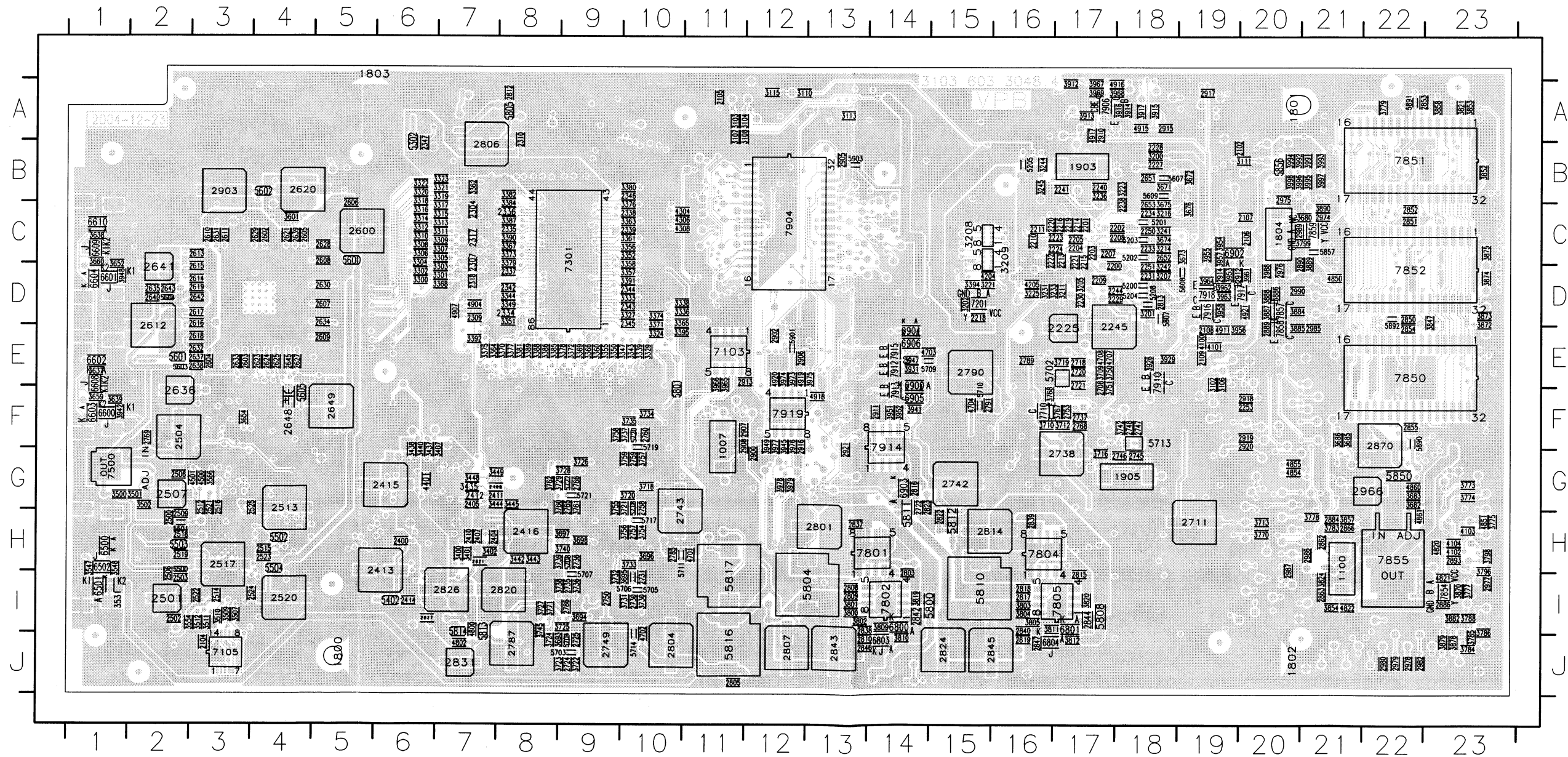


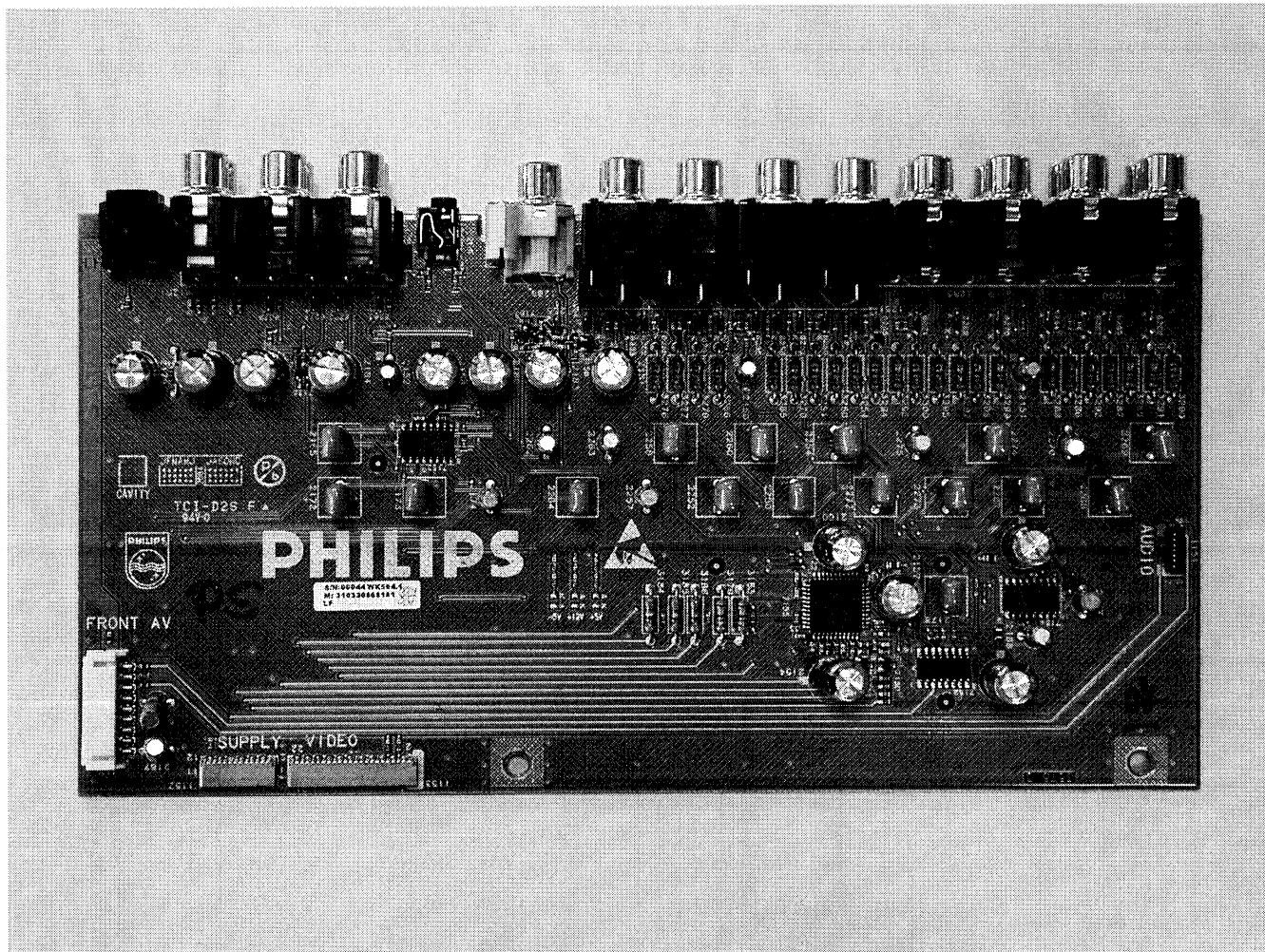




1014 G14	3845-4 E5	F869 C3
1015 B16	3846-1 E5	F870 D2
1019 E14	3846-2 E5	F871 D3
1804 I3	3846-3 E5	F872 D3
2888 E3	3846-4 E5	F873 D3
2889 E3	3846-5 E5	F874 A2
2900 H2	3852 C5	F875 A10
2891 G4	3853 B5	F876 B10
2893 G4	3858 C2	F877 B10
2950 A1	3859 C2	F878 B10
2951 A1	3860 B3	F879 B10
2952 A2	3861 B3	
2953 A2	3862 B4	
2954 A2	3865 C2	
2955 A2	3866 C3	
2956 A3	3867 C3	
2957 A3	3868 C3	
2958 A3	3871 D8	
2959 A3	3872 D2	
2960 A4	3873 D3	
2961 A4	3874 D3	
2962 A4	3875 D3	
2963 A4	3876 D8	
2964 A5	3877 D8	
2965 A5	3878 D8	
2966 B12	3879 D2	
2967 B11	3880 D8	
2968 B10	3881 C10	
2969 A13	3882 G10	
2970 A13	3883 D8	
2971 A13	3884 E2	
2972 A14	3885 E2	
2973 A14	3886 E2	
2974 H3	3887 E3	
2975 I3	3888 E3	
2976 I4	3889 G3	
2977 F10	3890 G3	
2978 F11	3891 F5	
2979 F11	3892 F5	
2980 F12	3893 F5	
2981 F12	3894 F5	
2982 F12	3895 H9	
2985 E2	3896 H9	
2986 I12	3897 H9	
2987 I13	3898 H9	
2988 E2	3899 G4	
2989 H4	3991 A9	
2990 F9	3992 A9	
2991 F9	3993 A9	
3690 H3	3994 A9	
3681 H3	3995 A10	
3682 A11	3996 B10	
3683 B12	3997 B10	
3684 H9	3998 B10	
3685 H9	4850 H2	
3686 H10	4851 D9	
3687 H10	4852 D9	
3688 C8	4853 D9	
3689 C9	4854 H10	
3690 C5	4855 H10	
3772 D8	4856 C9	
3773 F13	4857 C9	
3774 F13	4858 C12	
3775 F13	4859 C13	
3776 H9	4860 B12	
3777 H6	4861 A11	
3778 H6	5855 A11	
3779 C2	5856 A1	
3780 F3	5857 H2	
3781 G3	7855 A12	
3782 G5	7856 B5	
3783 G5	7857 E2	
3784 F10	7858 E3	
3785 F11	7859 H3	
3786 D10	F1402 H13	
3787 D10	F1402 H14	
3788 F11	F1403 H13	
3789 D10	F1405 H13	
3790 D9	F1407 H13	
3791 E9	F1408 H13	
3792 E9	F1409 H13	
3793 E9	F1411 H13	
3794 E11	F1413 H13	
3795 E9	F1415 H13	
3796 E11	F1416 H13	
3797 G11	F1418 H13	
3798 G10	F1420 H13	
3799 H4	F1420 H14	
3821 B5	F1501 B14	
3822-1 B5	F1502 B14	
3822-2 B5	F1504 B14	
3822-3 B5	F1506 B14	
3822-4 B5	F1510 B14	
3823-1 B5	F1510 B14	
3823-2 B5	F1512 B14	
3823-3 B5	F1514 C14	
3823-4 C5	F1516 C14	
3825-1 C5	F1518 C14	
3825-2 C5	F1520 C14	
3825-3 C5	F1522 C14	
3825-4 C5	F1524 C14	
3826 C5	F1526 C14	
3828 C5	F1902 E14	
3834-1 C5	F1904 E14	
3834-2 C5	F1906 E14	
3835-1 C5	F1910 E14	
3835-2 C5	F1910 E14	
3839-2 D5	F1912 E14	
3839-3 D5	F1914 F14	
3839-4 D5	F1916 F14	
3840-1 D5	F1918 F14	
3840-2 D5	F1920 F14	
3840-3 D5	F1922 F14	
3840-4 D5	F1924 F14	
3844-1 D5	F1925 F14	
3844-2 D5	F860 B8	
3844-3 D5	F861 B8	
3844-4 D5	F862 B8	
3845-1 D5	F863 B8	
3845-2 D5	F864 A10	
3845-3 D5	F866 C8	

[illegible][illegible]





Video I/O

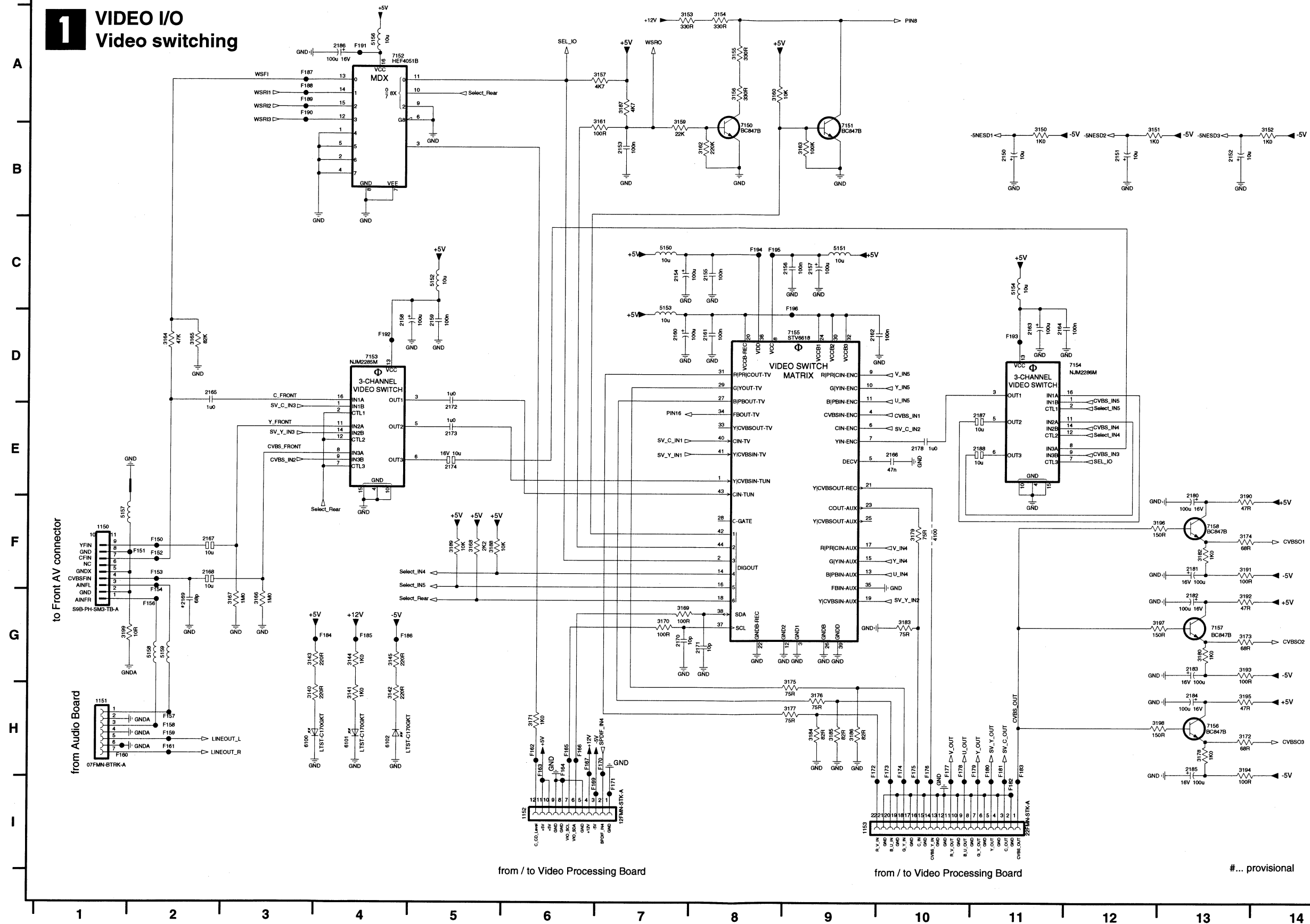
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

Boards can be ordered with codenumber "3103 308 68181".

1 VIDEO I/O

Video switching

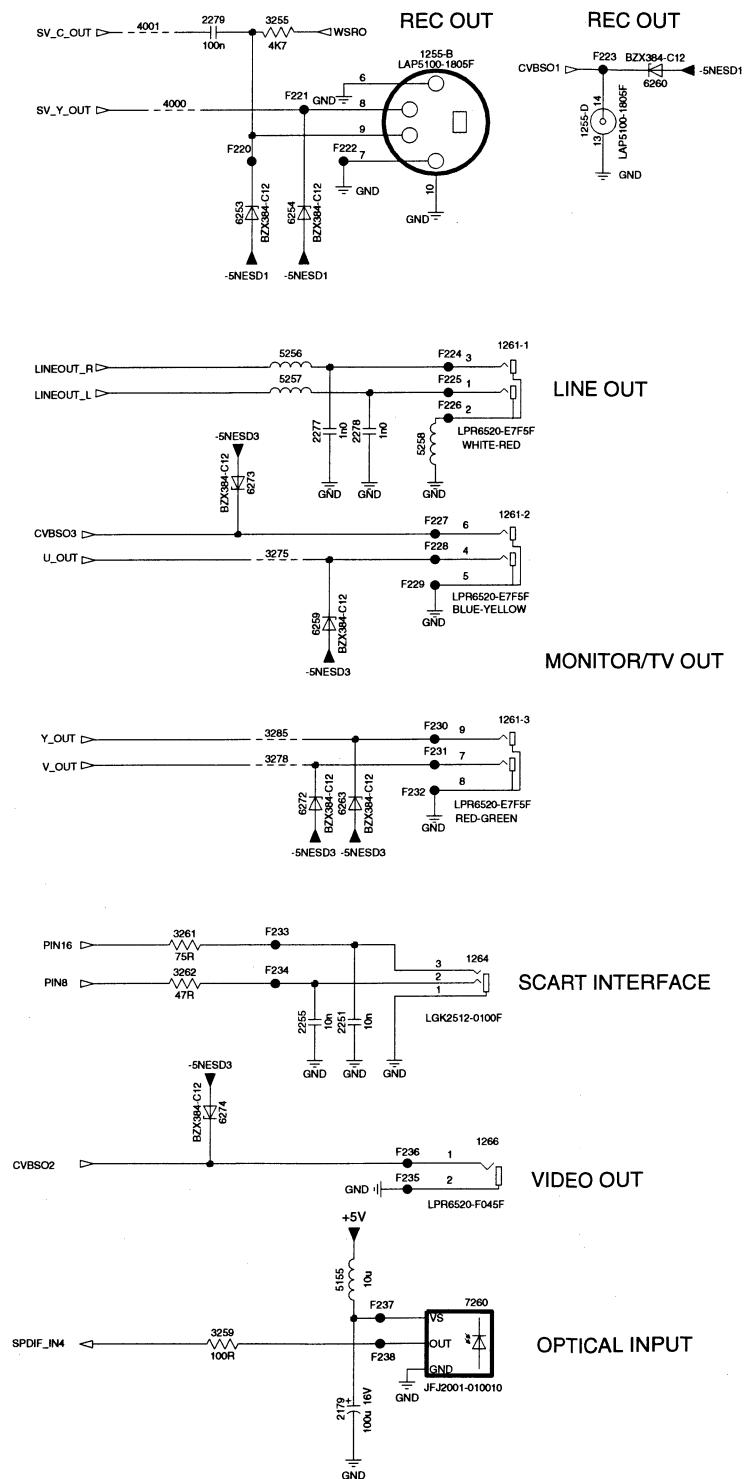
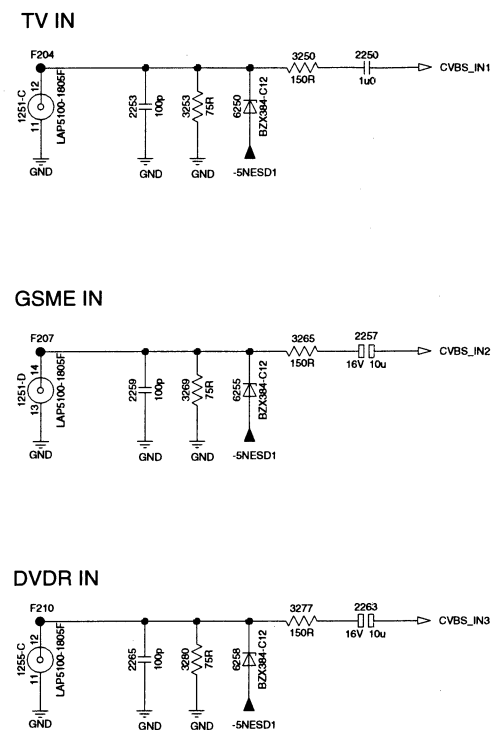
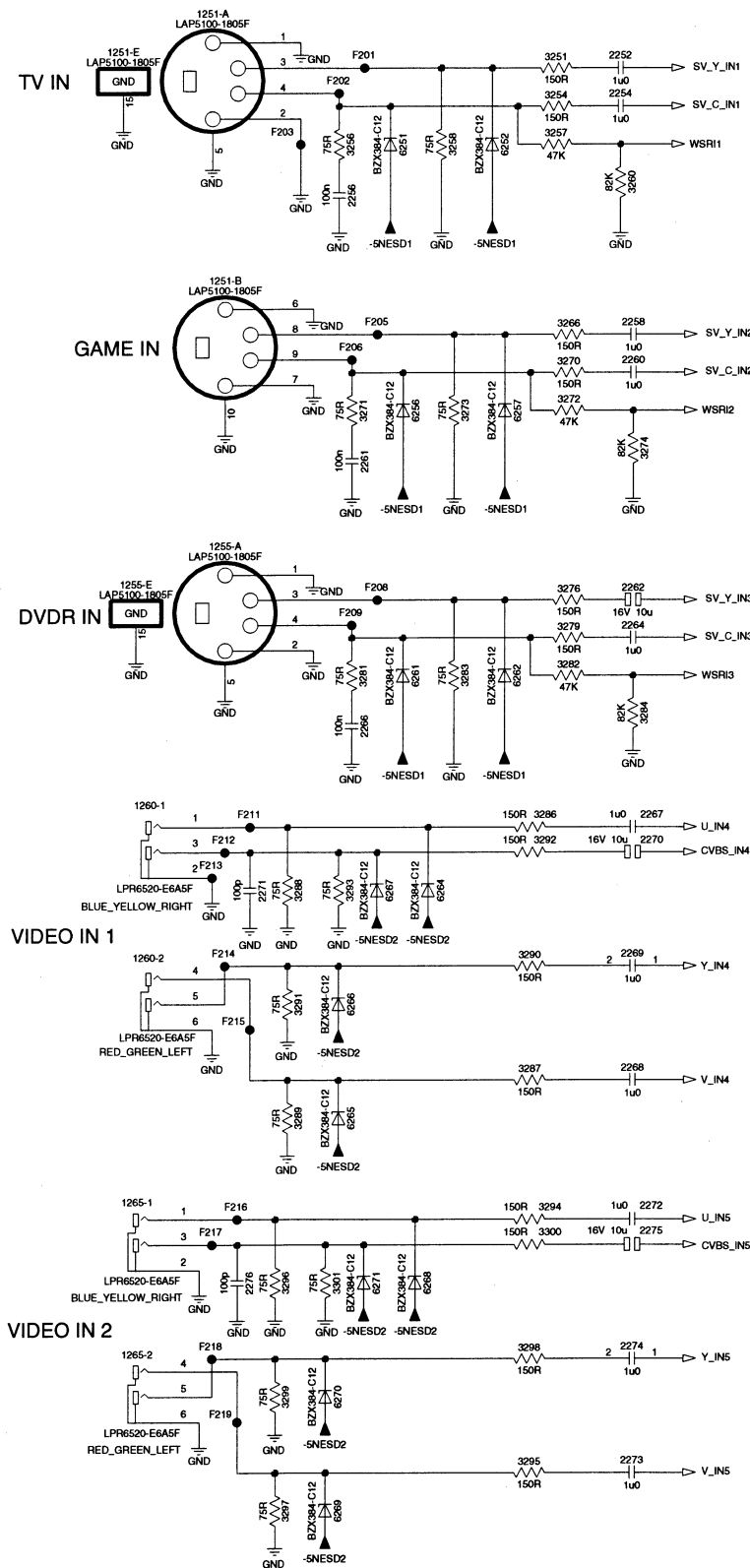


#... provisional

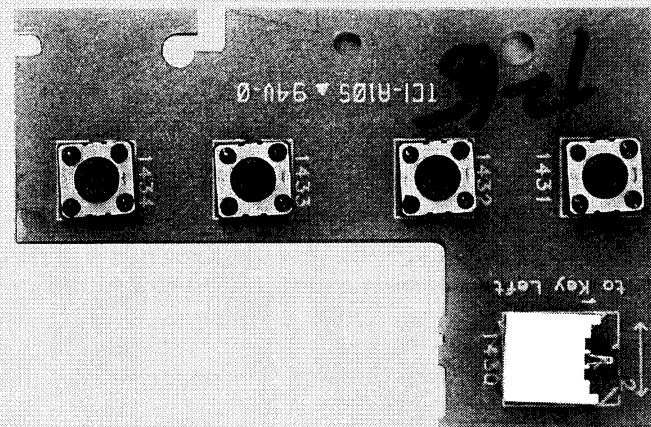
1510 F11	F150 F2
1511 H1	F151 F2
1512 I6	F152 F2
1513 H11	F153 F2
2150 B11	F154 F2
2151 B12	F156 G2
2152 B13	F157 H2
2153 B7	F158 H2
2154 C7	F159 H2
2155 C8	F160 H1
2156 C9	F161 H2
2157 C9	F162 H6
2158 D4	F163 H6
2159 D5	F164 H6
2160 D7	F165 H6
2161 D8	F166 H7
2162 D9	F167 H6
2163 D11	F168 H7
2164 D11	F170 H7
2165 D12	F171 I7
2166 E10	F172 H9
2167 F2	F173 H10
2168 F2	F174 H10
2169 G2	F175 H10
2170 G7	F176 H10
2171 G8	F177 H10
2172 E5	F178 H10
2173 E5	F179 H11
2174 E5	F180 H11
2178 E10	F181 H11
2180 E13	F182 H11
2181 F13	F183 H11
2182 G13	F184 G4
2183 G13	F185 G4
2184 H13	F186 G4
2185 H13	F187 G3
2186 A4	F188 G3
2187 E11	F189 G3
2188 E11	F190 A3
3140 H3	F191 A3
3141 H4	F192 D4
3142 H4	F193 D1
3143 G3	F194 C3
3144 G4	F195 C3
3145 G4	F196 C3
3150 B11	
3151 B12	
3152 B14	
3153 A7	
3154 A8	
3155 A8	
3156 A8	
3157 A7	
3159 A7	
3160 A8	
3161 A7	
3162 B8	
3163 B9	
3164 D2	
3165 D2	
3166 G3	
3167 G3	
3168 F5	
3169 G7	
3170 G7	
3171 H6	
3172 H13	
3173 H13	
3174 F13	
3175 G9	
3176 H9	
3177 H9	
3178 H13	
3179 F10	
3180 G13	
3182 F13	
3183 G10	
3184 H9	
3185 H9	
3186 H9	
3187 A7	
3188 F5	
3189 F5	
3190 E13	
3191 F13	
3192 G13	
3193 G13	
3194 H13	
3195 H13	
3196 F13	
3197 G13	
3198 H13	
4100 F10	
4100 F10	
5150 C7	
5151 C9	
5152 C5	
5153 C7	
5154 C11	
5156 A4	
5157 F1	
5158 D2	
5159 D2	
6101 H4	
6102 H4	
7150 B8	
7151 B9	
7152 A4	
7153 A4	
7154 D12	
7155 D9	
7156 H13	
7157 G13	
7158 F13	

2 VIDEO I/O

Video connectors



1251-A A2	6261 E3
1251-B B2	6262 E4
1251-C A6	6263 F11
1251-D C6	6264 F3
1251-E A2	6265 G3
1255-A D2	6266 F3
1255-B A11	6267 F3
1255-C D6	6268 H3
1255-D B12	6269 I3
1255-E D2	6270 I3
1260-1 E2	6271 H3
1260-2 F2	6272 F11
1261-1 C12	6273 D10
1261-2 D12	6274 G10
1261-3 E12	7260 H11
1264 F11	F201 A3
1265-1 H2	F202 A3
1265-2 H2	F203 B3
1266 G12	F204 A6
1279 I11	F205 C3
1280 A8	F206 C3
1281 G11	F207 C6
1282 A4	F208 D3
1283 A6	F209 D3
1284 A4	F210 D6
1285 G11	F211 E2
1286 B3	F212 F2
1287 C8	F213 F2
1288 C5	F214 F2
1289 C8	F215 G2
1290 C5	F216 H2
1291 C3	F217 H2
1292 D5	F218 H2
1293 D8	F219 I2
1294 D5	F220 B10
1295 D6	F221 B10
1296 E3	F222 B11
1297 E5	F223 A12
1298 G5	F224 C11
1299 F5	F225 C11
1270 F5	F226 C11
1271 F2	F227 D11
1272 H5	F228 D11
1273 I5	F229 D11
1274 H5	F230 E11
1275 H5	F231 E11
1276 H2	F232 E11
1277 C11	F233 F10
1278 C11	F234 F10
1279 A10	F235 H11
1280 A7	F236 G11
1281 A4	F237 H11
1282 A4	F238 I11
1283 A10	
1284 B3	
1285 B4	
1286 B4	
1287 H10	
1288 B5	
1289 F10	
1290 F10	
1291 C7	
1292 C4	
1293 C7	
1294 C4	
1295 C3	
1296 C4	
1297 C4	
1298 C5	
1299 D10	
1300 D4	
1301 D7	
1302 E10	
1303 D4	
1304 D7	
1305 E3	
1306 E4	
1307 E4	
1308 E5	
1309 E10	
1310 E4	
1311 G4	
1312 F3	
1313 G3	
1314 F4	
1315 F3	
1316 F4	
1317 F3	
1318 H4	
1319 H4	
1320 H3	
1321 H3	
1322 B10	
1323 A10	
1324 H11	
1325 C10	
1326 D11	
1327 A7	
1328 B3	
1329 B4	
1330 B10	
1331 B10	
1332 C7	
1333 C4	
1334 C3	
1335 C4	
1336 D7	
1337 E11	
1338 B12	



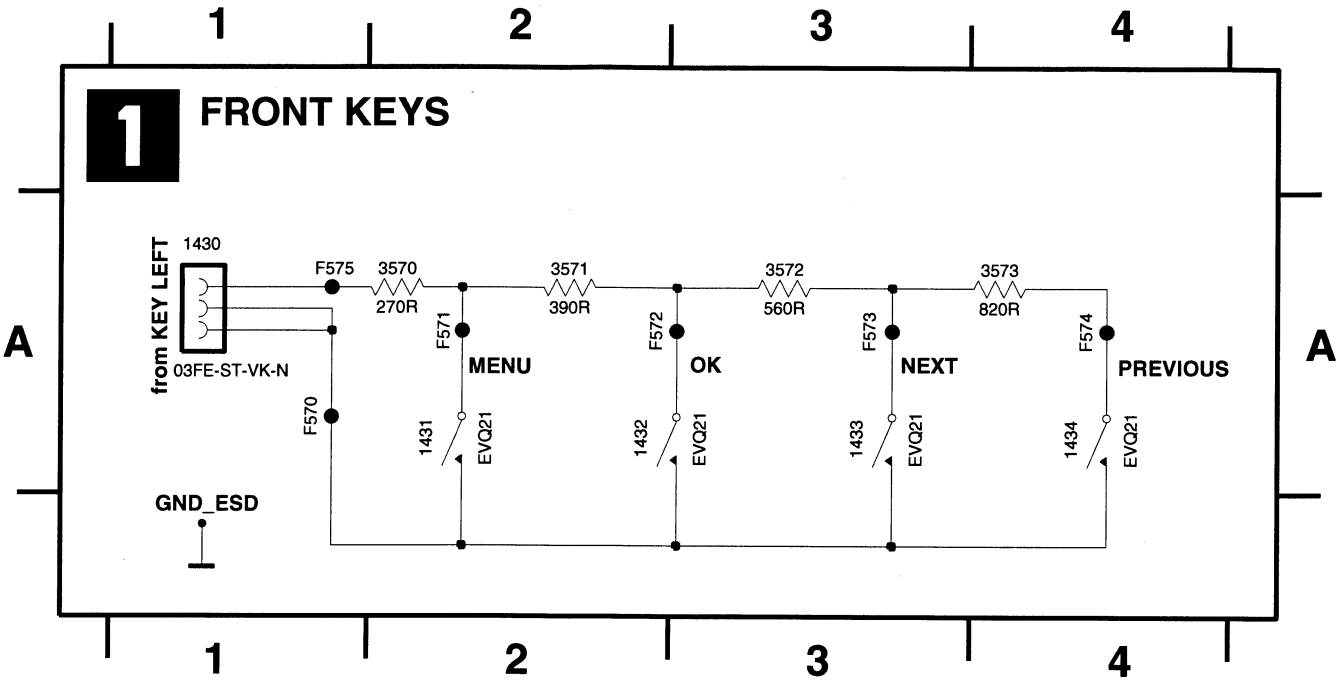
Front Keys

**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

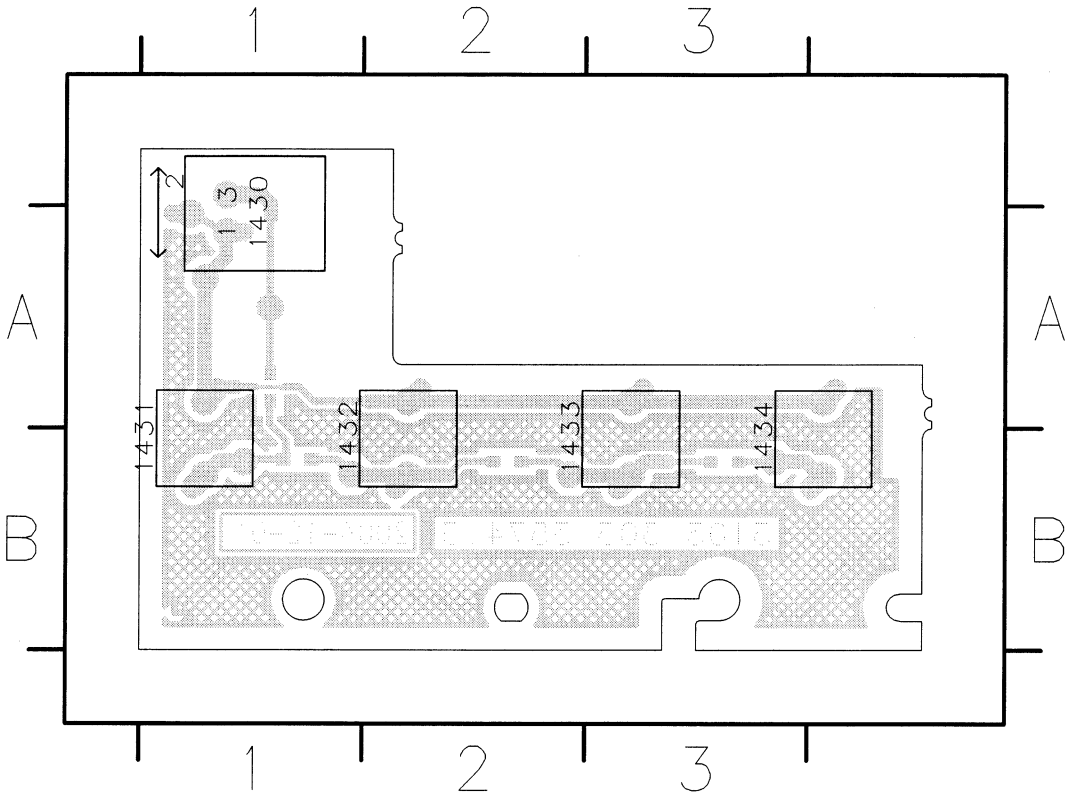
In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26723".

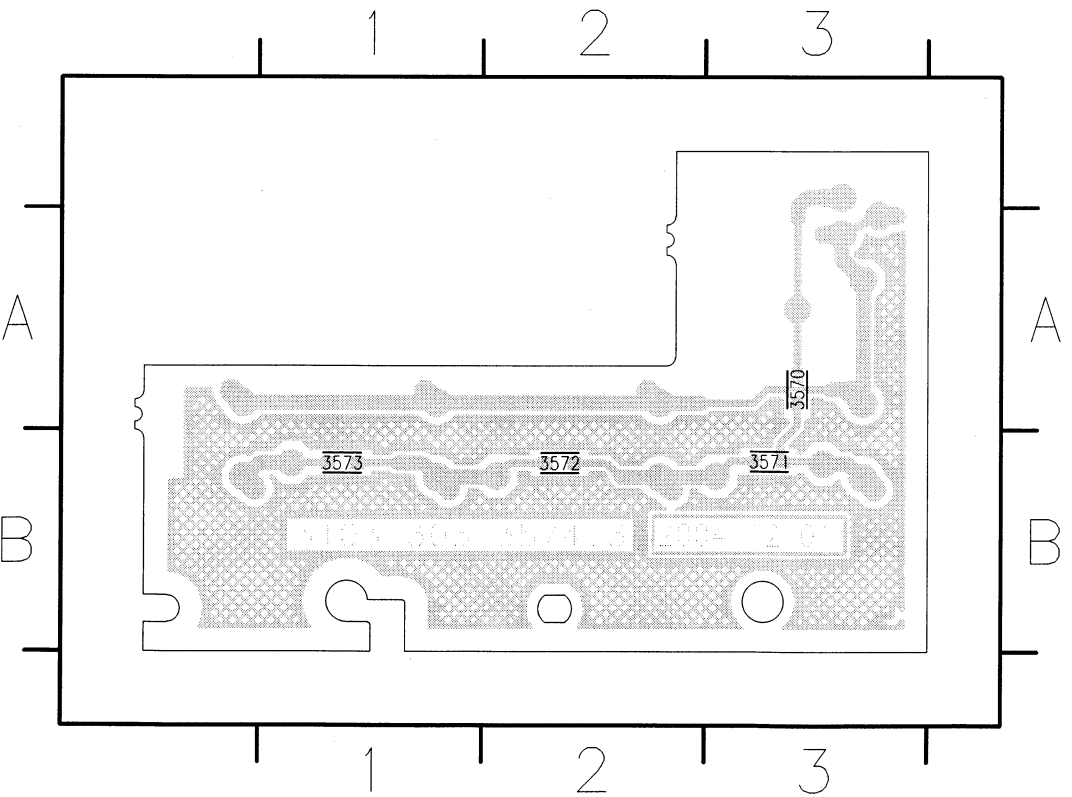
1430 A1 1432 A3 1434 A4 3571 A2 3573 A4 F571 A2 F573 A3 F575 A2
1431 A2 1433 A3 3570 A2 3572 A3 F570 A1 F572 A3 F574 A4

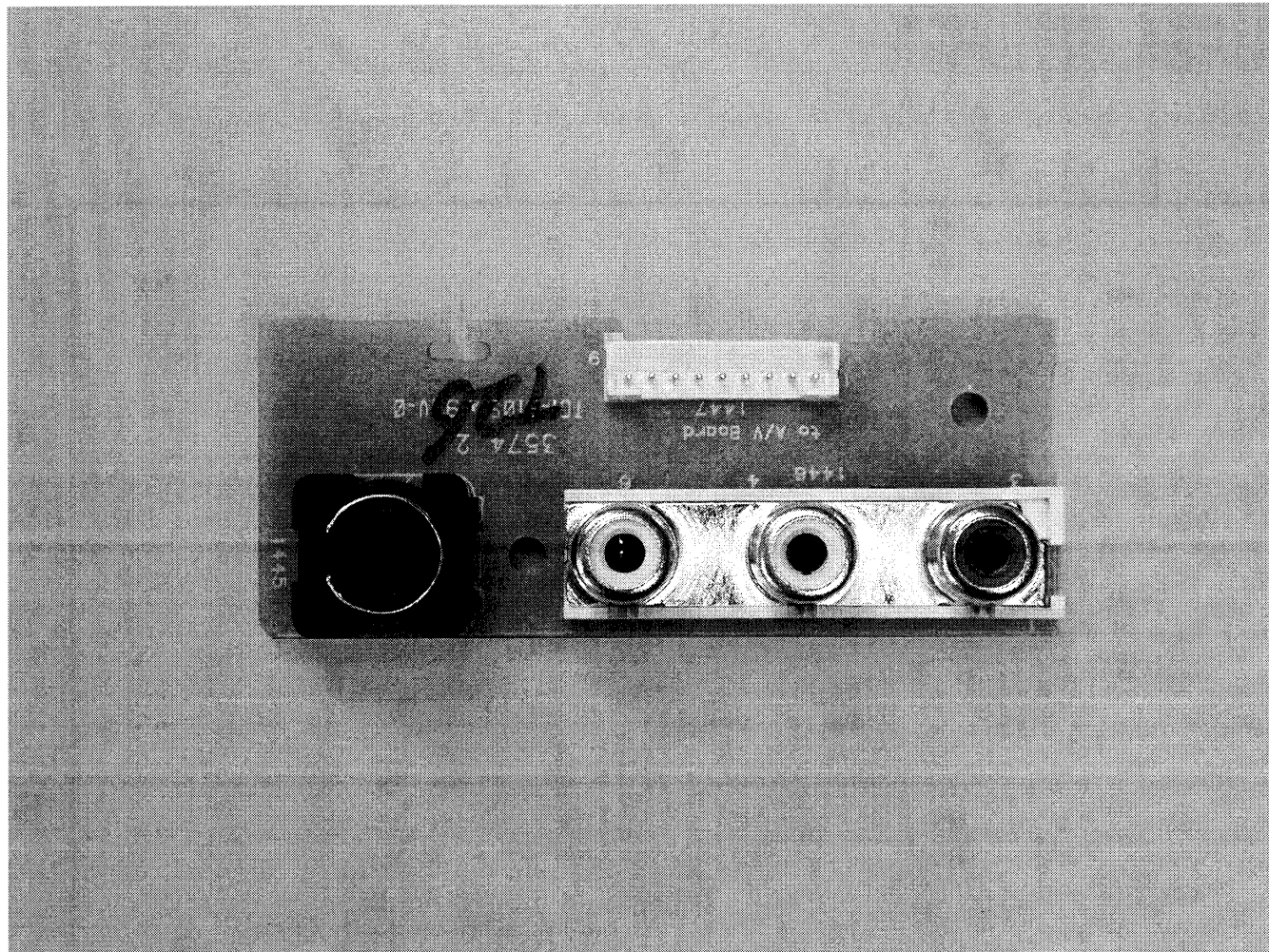


1430 A1 1431 B1 1432 B1 1433 B2 1434 B3



3570 A3 3571 B3 3572 B2 3573 B1





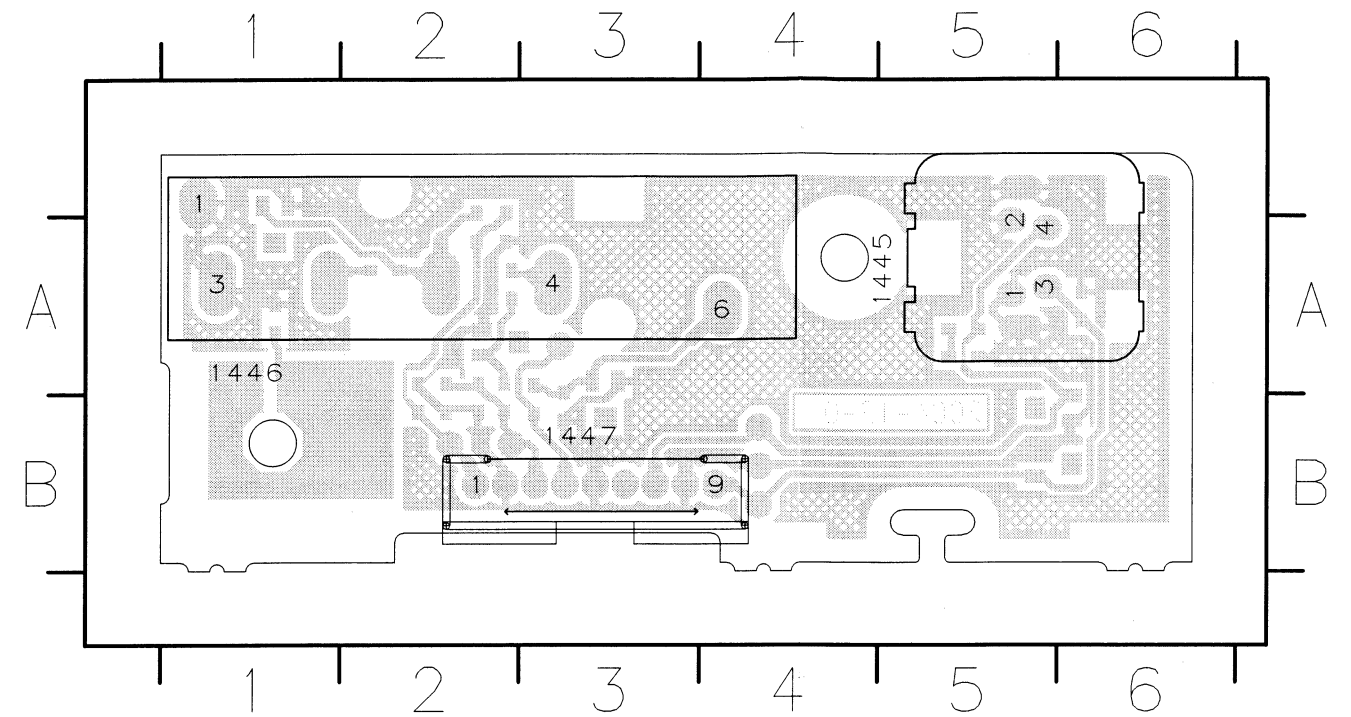
Front I/O

**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

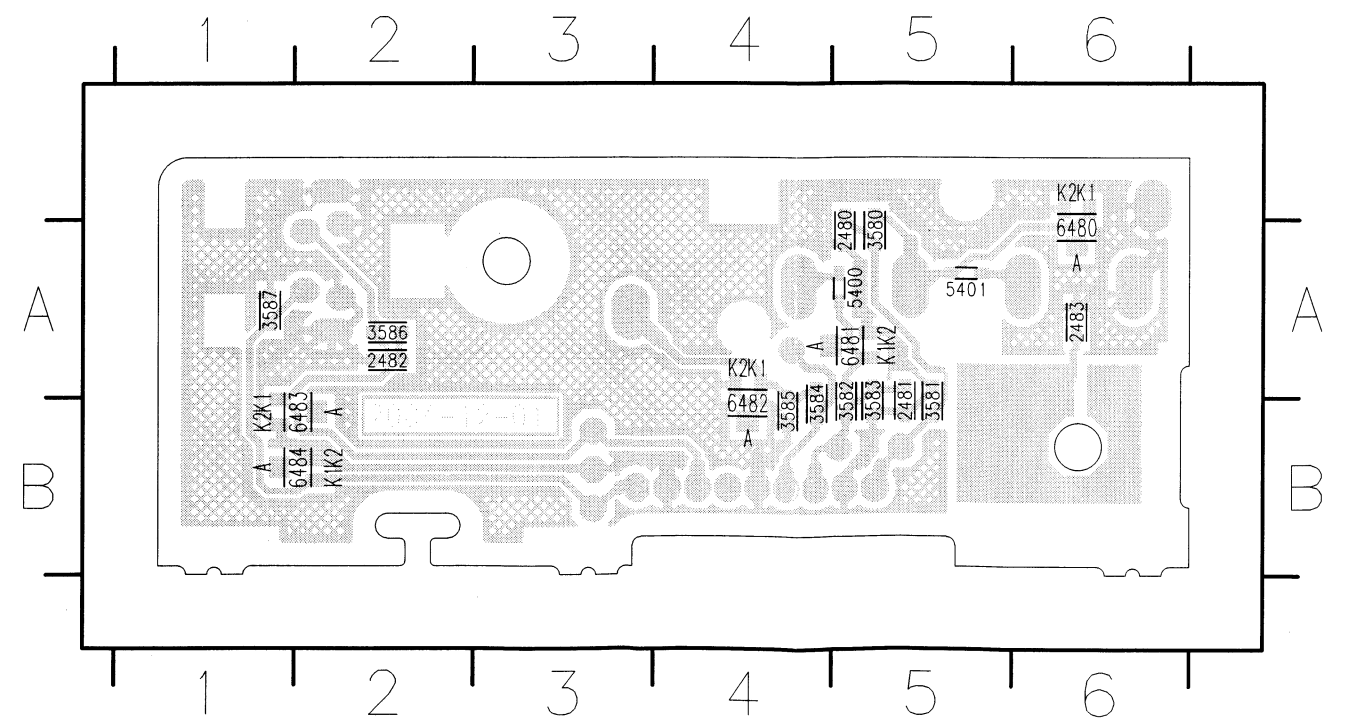
In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26724".

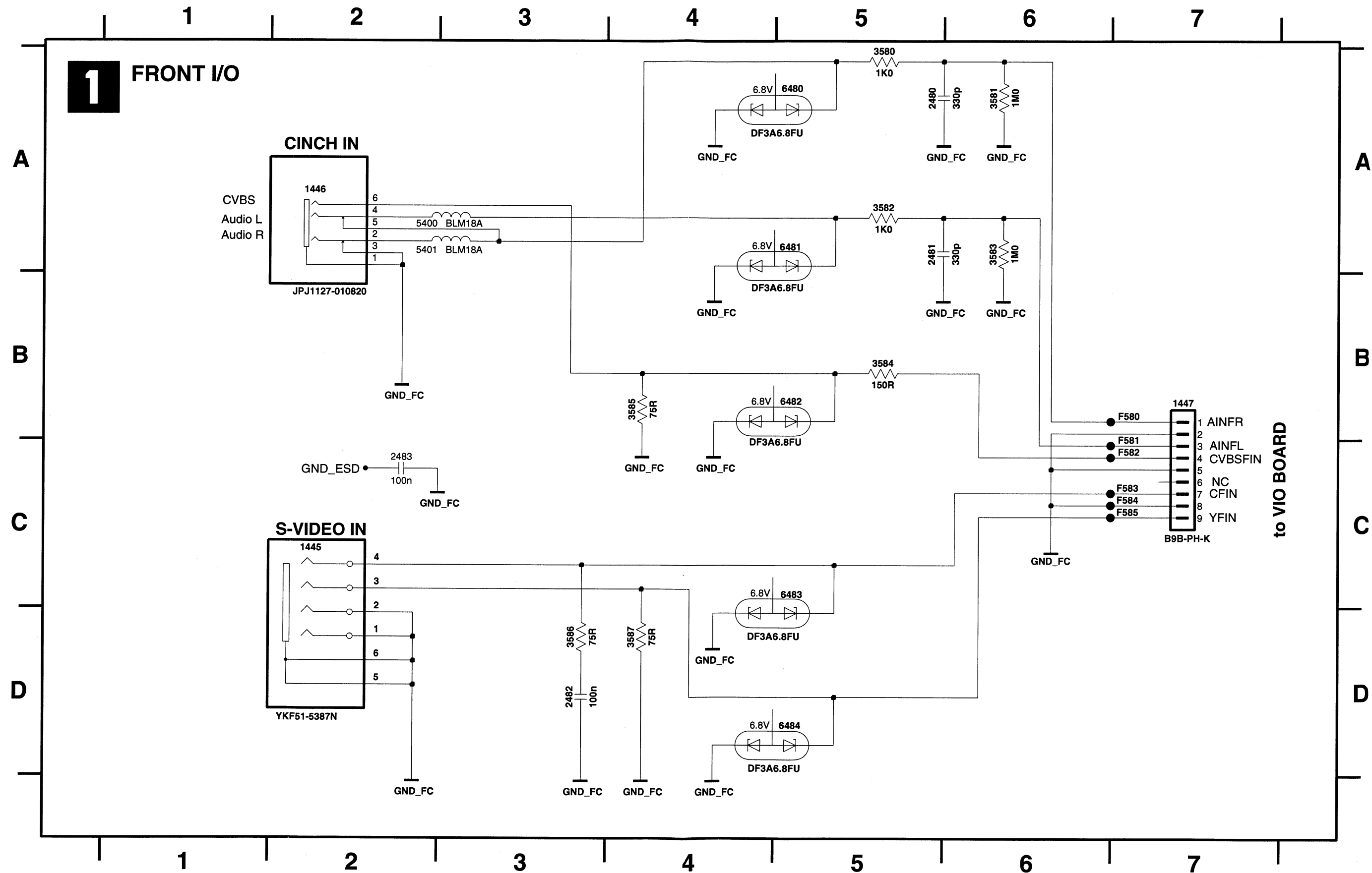
1445 A5 1446 A1 1447 B3

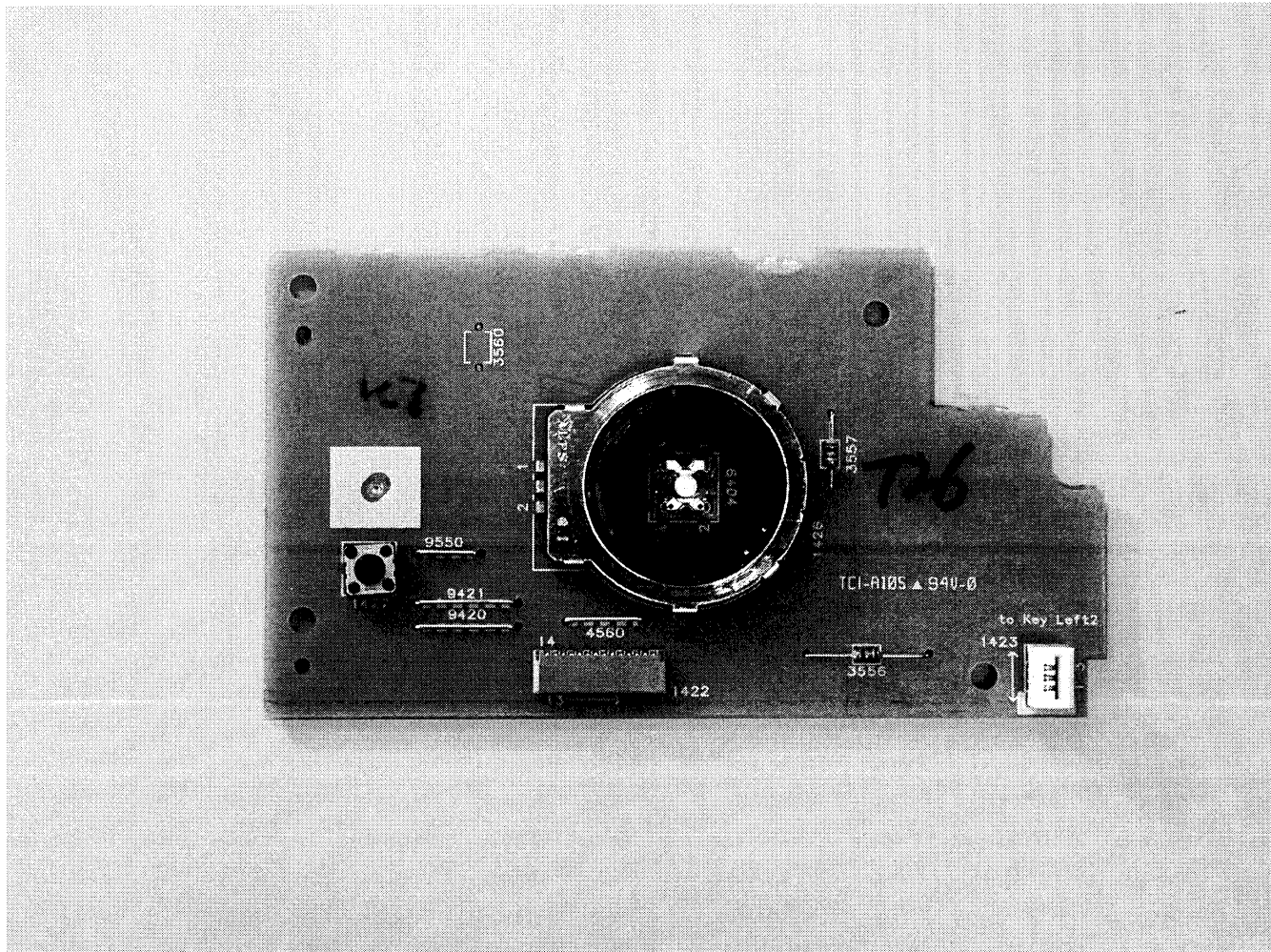


2480 A5	3580 A5	3584 B4	5400 A5	6482 B4
2481 B5	3581 B5	3585 B4	5401 A5	6483 B2
2482 A2	3582 B5	3586 A2	6480 A6	6484 B2
2483 A6	3583 B5	3587 A1	6481 A5	



1445 C2 1447 B7 2481 A5 2483 C2 3581 A6 3583 A6 3585 B4 3587 D4 5401 A2 6481 A5 6483 C5 F580 B7 F582 C7 F584 C7
1446 A2 2480 A5 2482 D3 3580 A5 3582 A5 3584 B5 3586 D3 5400 A2 6480 A5 6482 B5 6484 D5 F581 C7 F583 C7 F585 C7





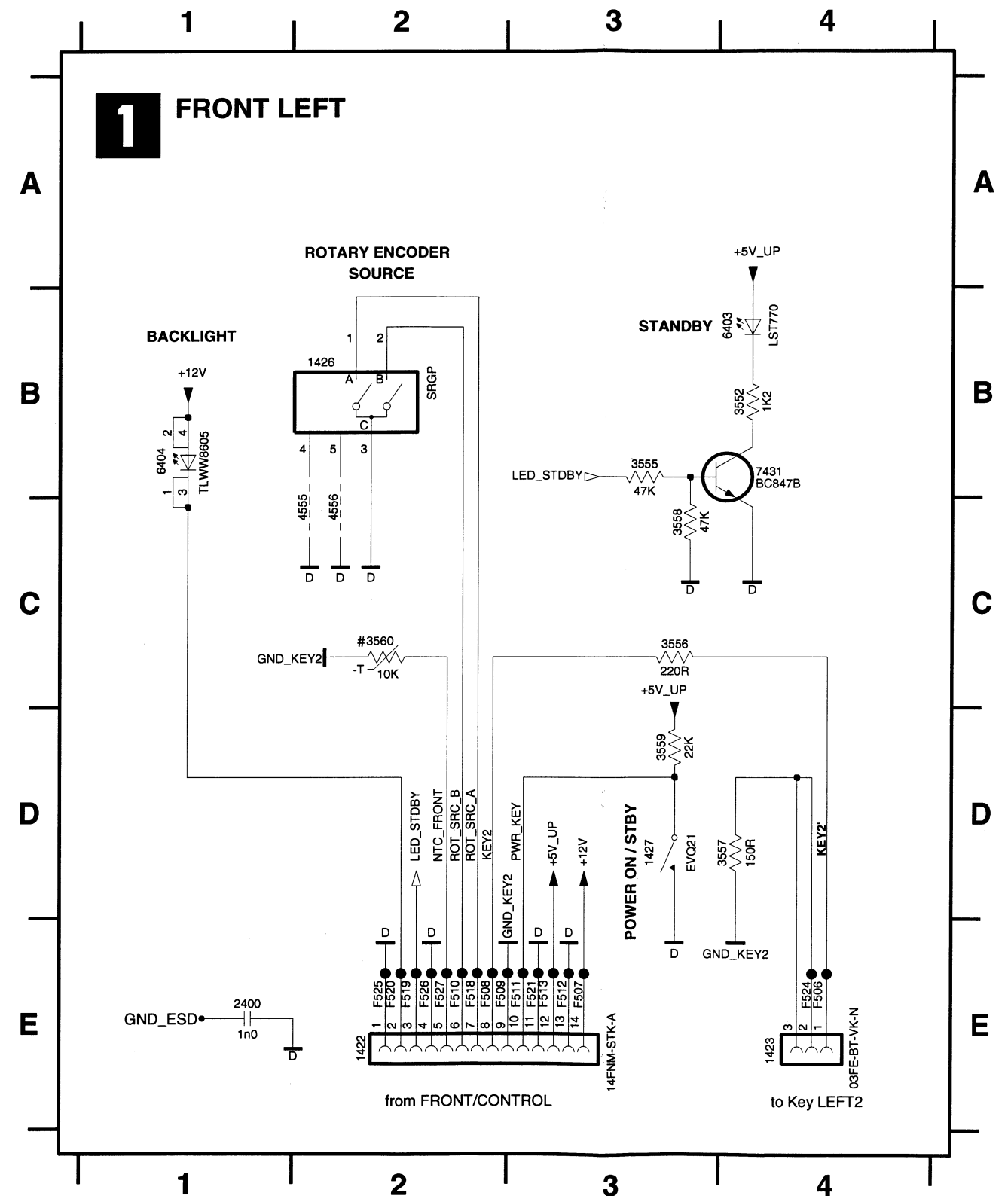
Front Left

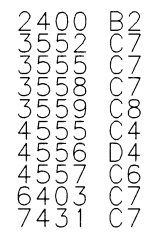
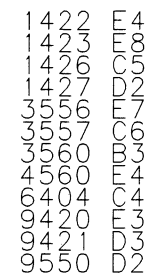
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

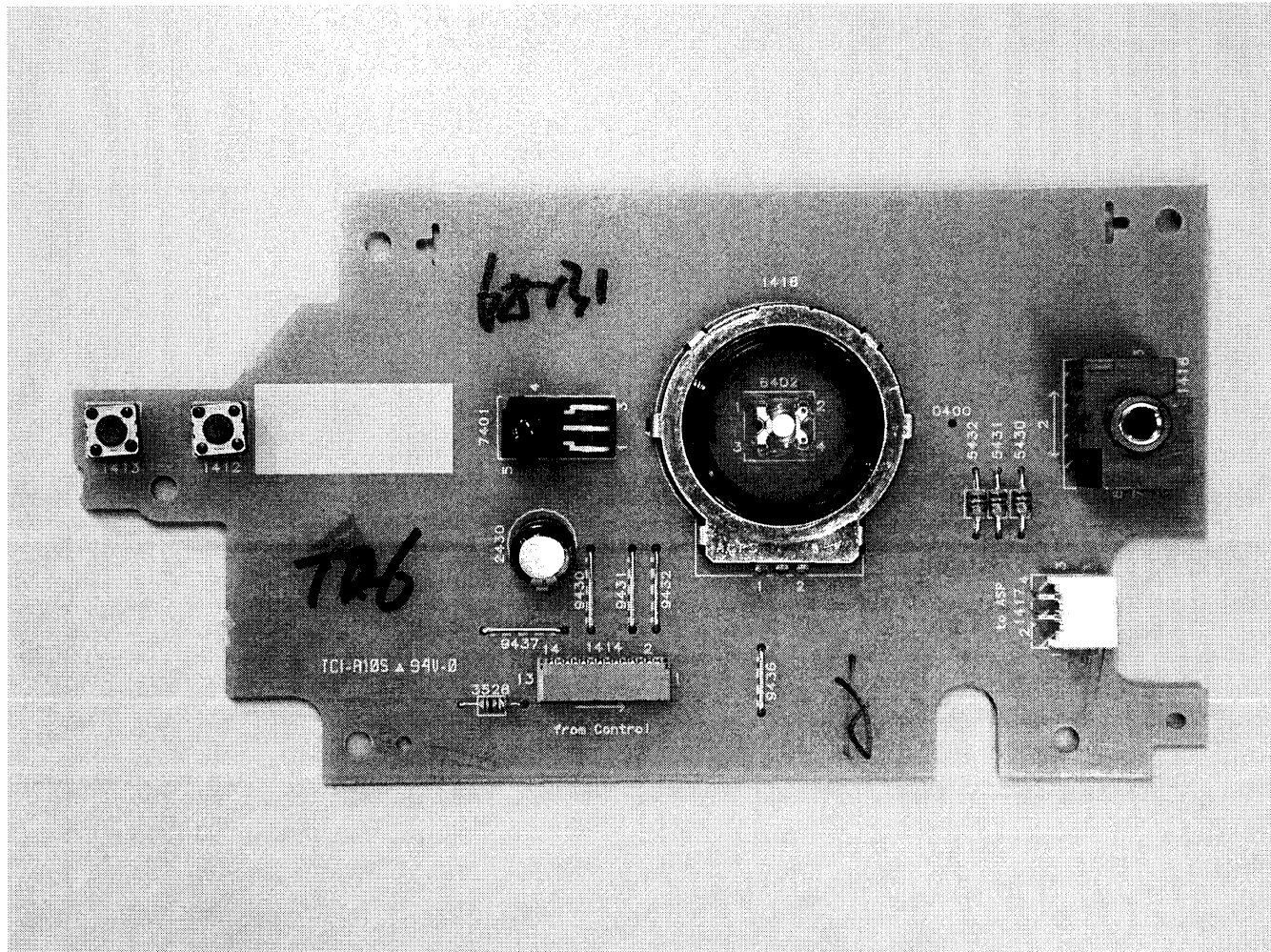
In case of defects please replace the entire board.

Boards can be ordered with codenumber “9965 000 26721”.

1422 E2	1427 D3	3555 B3	3558 C3	4555 C2	6404 B1	F507 E3	F510 E2	F513 E3	F520 E2	F525 E2
1423 E4	2400 E1	3556 C3	3559 D3	4556 C2	7431 B4	F508 E2	F511 E3	F518 E2	F521 E3	F526 E2
1426 B2	3552 B4	3557 D4	3560 C2	6403 B4	F506 E4	F509 E2	F512 E3	F519 E2	F524 E4	F527 E2







Front Right

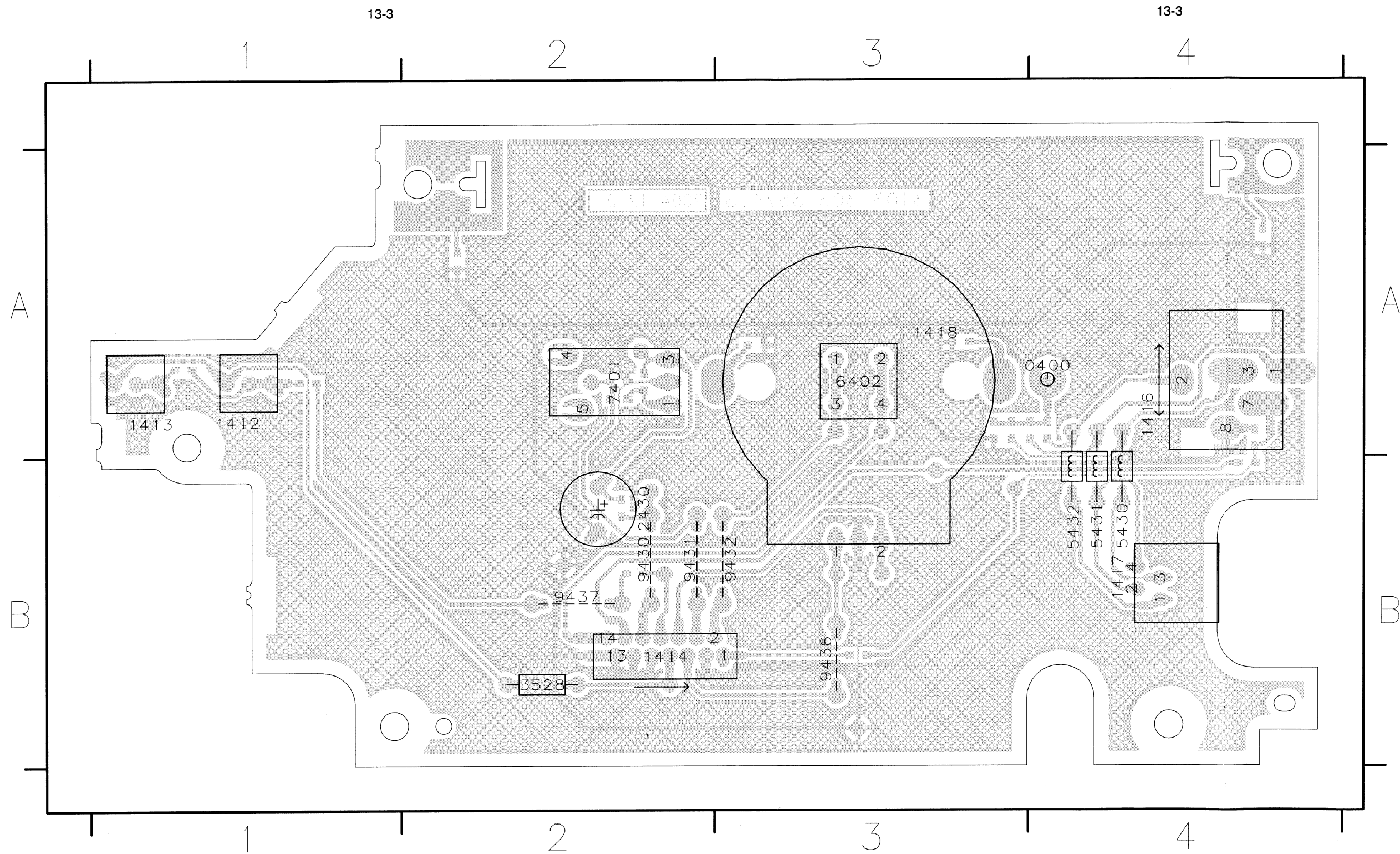
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26722".

1 FRONT RIGHT





0400	A4
1412	A1
1413	A1
1414	B2
1416	A4
1417	B4
1418	A3
2430	B2
3528	B2
4300	B4
4301	B4
4302	B4
4001	A3
4002	A2
4300	A2
4301	B2
4302	B3
4306	B3
4307	B2

13-4

13-4

1

2

3

4

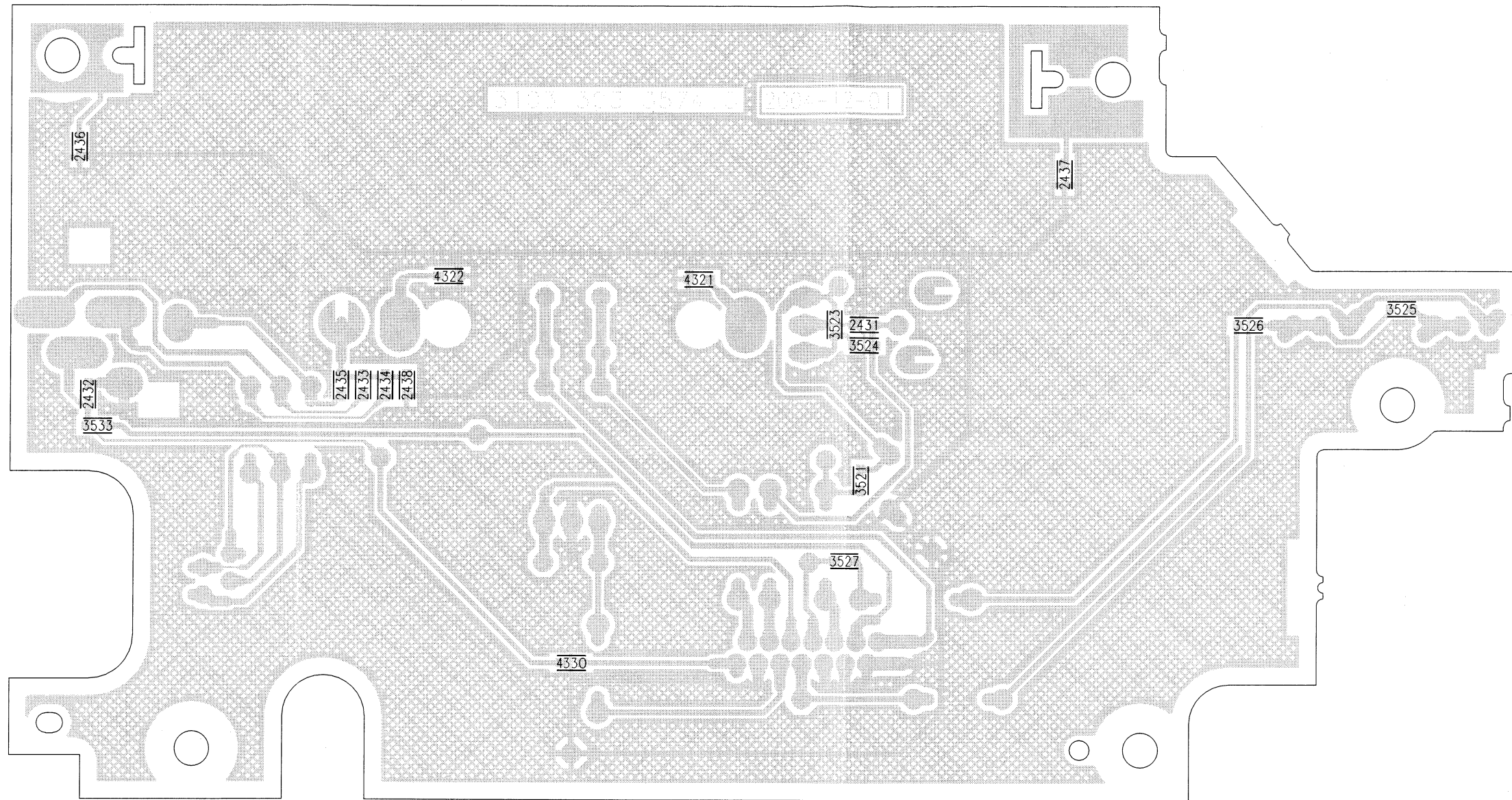
A

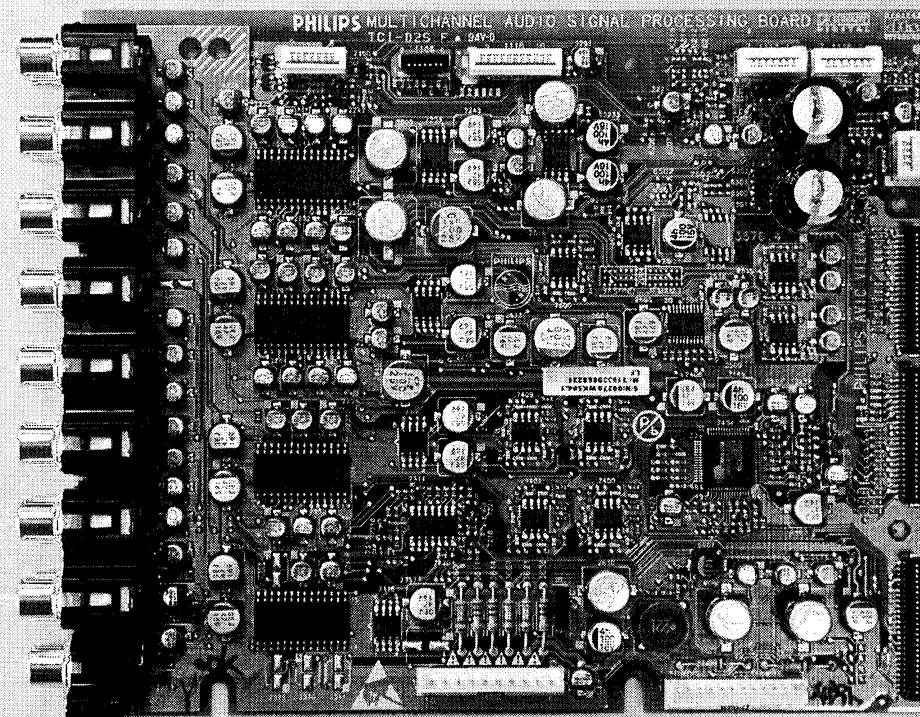
B

A

B

2431 A3
2432 A1
2433 A1
2434 A2
2435 A1
2436 A1
2437 A3
2438 A2
3521 B3
3522 A3
3523 A3
3524 A4
3525 A4
3526 B3
3527 B1
4321 A2
4322 A2
4323 A2
4330 B2





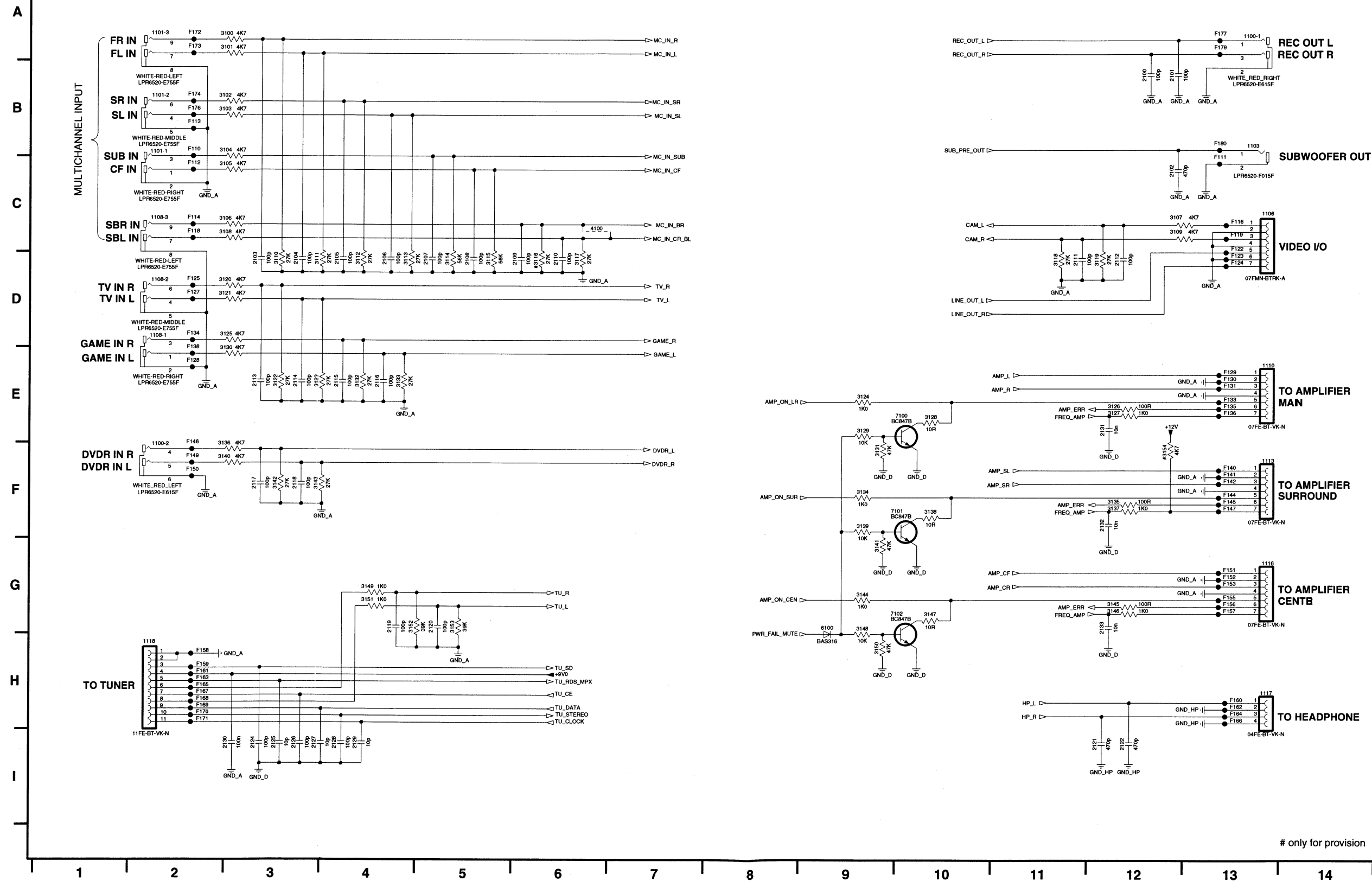
Audio Signal Processing

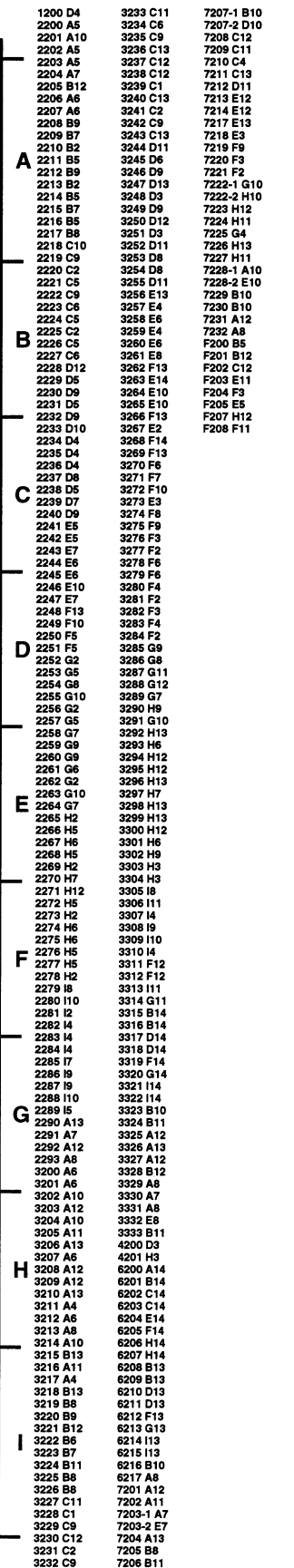
**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

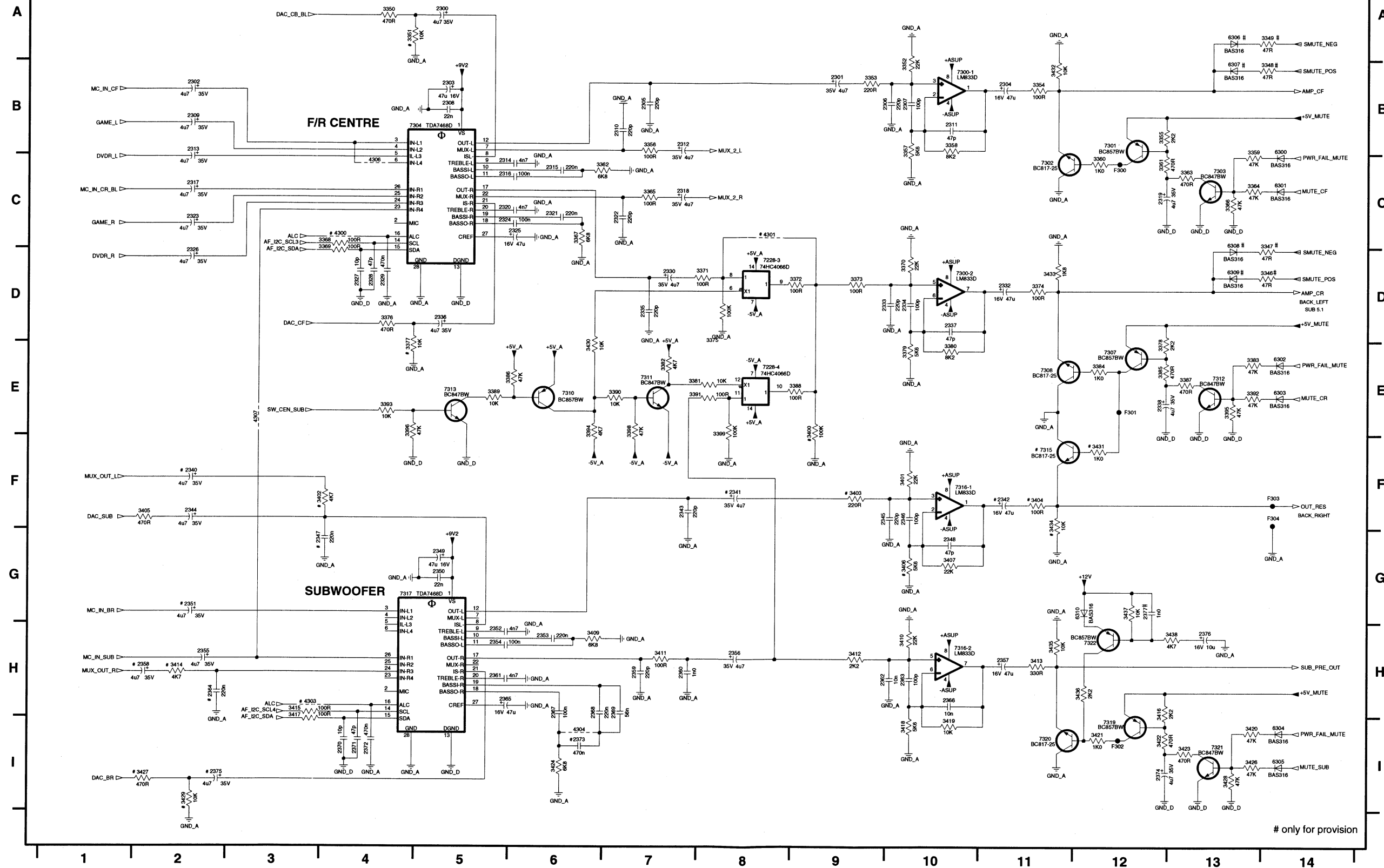
Boards can be ordered with codenumber "3103 308 68221".

1 ASP BOARD CONNECTORS IN/OUT



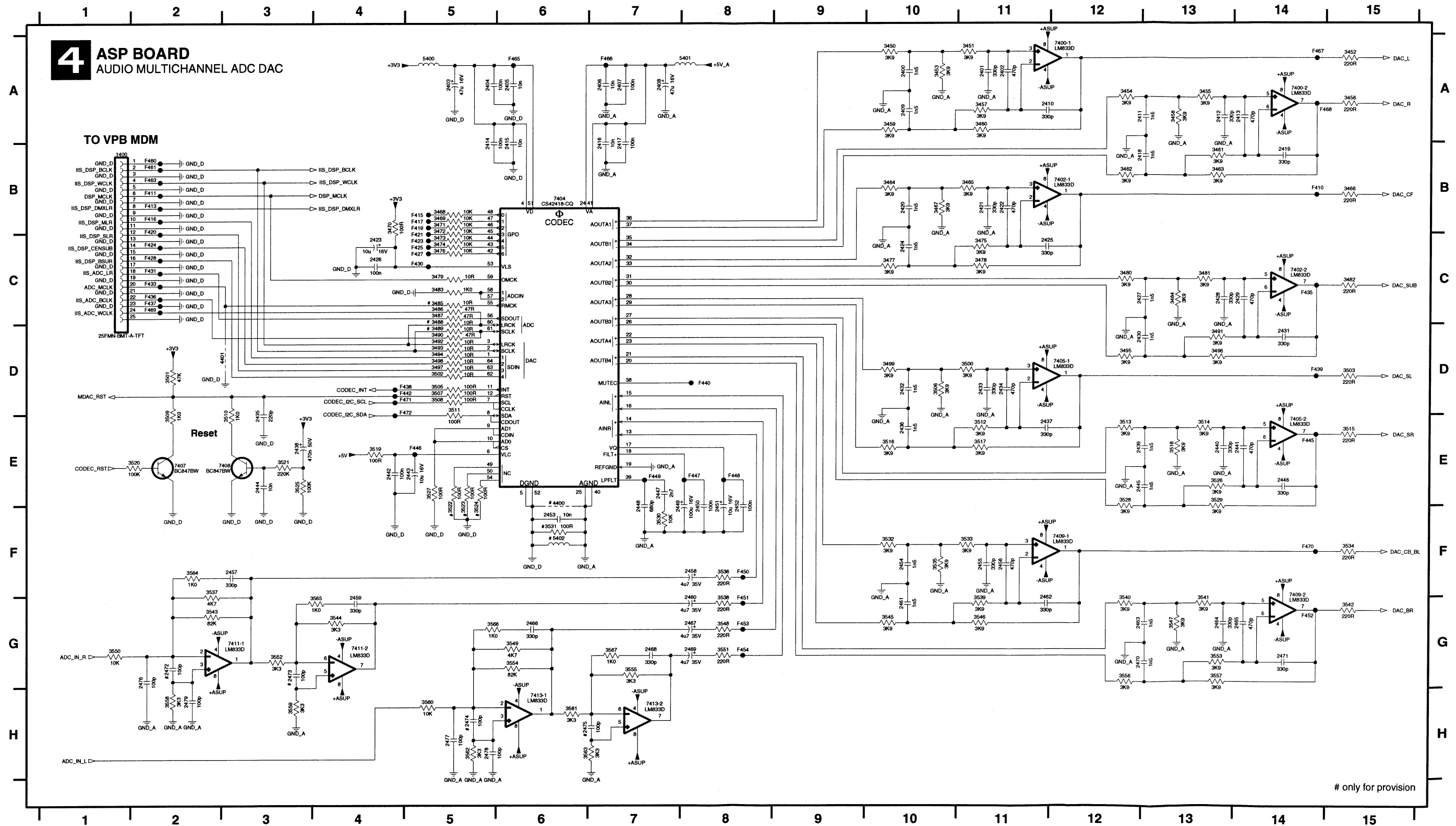


3 ASP BOARD AUDIO PROCESSING 2



2300 A5	3386 E6
2301 B9	3387 E13
2302 B2	3388 E9
2303 B5	3389 E5
2304 B11	3390 E7
2305 B7	3391 E7
2306 B9	3392 E13
2307 B10	3393 E4
2308 B5	3394 E6
2309 B2	3395 E13
2310 B7	3396 E4
2311 B10	3397 E7
2312 B7	3398 E8
2313 B2	3400 E9
2314 C5	3401 F10
2315 C6	3402 F4
2316 C5	3403 F9
2317 C2	3404 F11
2318 C7	3405 F2
2319 C12	3406 G10
2320 C5	3407 G10
2321 C6	3409 H6
2322 C7	3410 H10
2323 C2	3411 H7
2324 C5	3412 H9
2325 C6	3413 H11
2326 D2	3414 H2
2327 D4	3415 H3
2328 D4	3416 H12
2329 D4	3417 I3
2330 D7	3418 I10
2332 D11	3419 I10
2333 D9	3420 I13
2334 D10	3421 I12
2335 D7	3422 I12
2336 D5	3423 I13
2337 D10	3424 I6
2338 E12	3426 I13
2340 F2	3427 I2
2341 F8	3428 I13
2342 F11	3429 I2
2343 F7	3430 E6
2344 F2	3431 F12
2345 F9	3432 B11
2346 F10	3433 D11
2347 G3	3434 F11
2348 G10	3435 H11
2349 G5	3436 H12
2350 G5	3437 G12
2351 G2	3438 H13
2352 H5	4300 C4
2353 H6	4301 C8
2354 H5	4303 H3
2355 H2	4304 I6
2356 H8	4306 C4
2357 H11	4307 E3
2358 H2	6300 B14
2359 H7	6301 C14
2360 H7	6302 E14
2361 H5	6303 E14
2362 H9	6304 I14
2363 H10	6305 I14
2364 H2	6306 A13
2365 H5	6307 B13
2366 H10	6308 C13
2367 H6	6309 D13
2368 H6	6310 G12
2369 H7	7228-3 D8
2370 I4	7228-4 E8
2371 I4	7300-1 B11
2372 I4	7300-2 D11
2373 I6	7301 B12
2374 I12	7302 C11
2375 I2	7303 C13
2376 H13	7304 B5
2377 G12	7307 E12
2378 D14	7308 E11
2379 C14	7310 E6
2380 B14	7311 E7
2381 A14	7312 E13
2382 A4	7313 E5
2383 A4	7315 F11
2384 B10	7316-1 F10
2385 B9	7316-2 H10
2386 B11	7317 G4
2387 B12	7319 I12
2388 B7	7320 I11
2389 B10	7321 I13
2390 B13	7322 H12
2391 C12	7300 C12
2392 C12	7301 E12
2393 C6	7302 I12
2394 C13	7303 F14
2395 C7	7304 F14
2396 C13	
2397 C6	
2398 C4	
2399 D4	
2400 D10	
2401 D8	
2402 D9	
2403 D9	
2404 D11	
2405 D8	
2406 D4	
2407 E4	
2408 E12	
2409 E10	
2410 E7	
2411 E7	
2412 E13	
2413 E12	
2414 E12	
2415 E12	

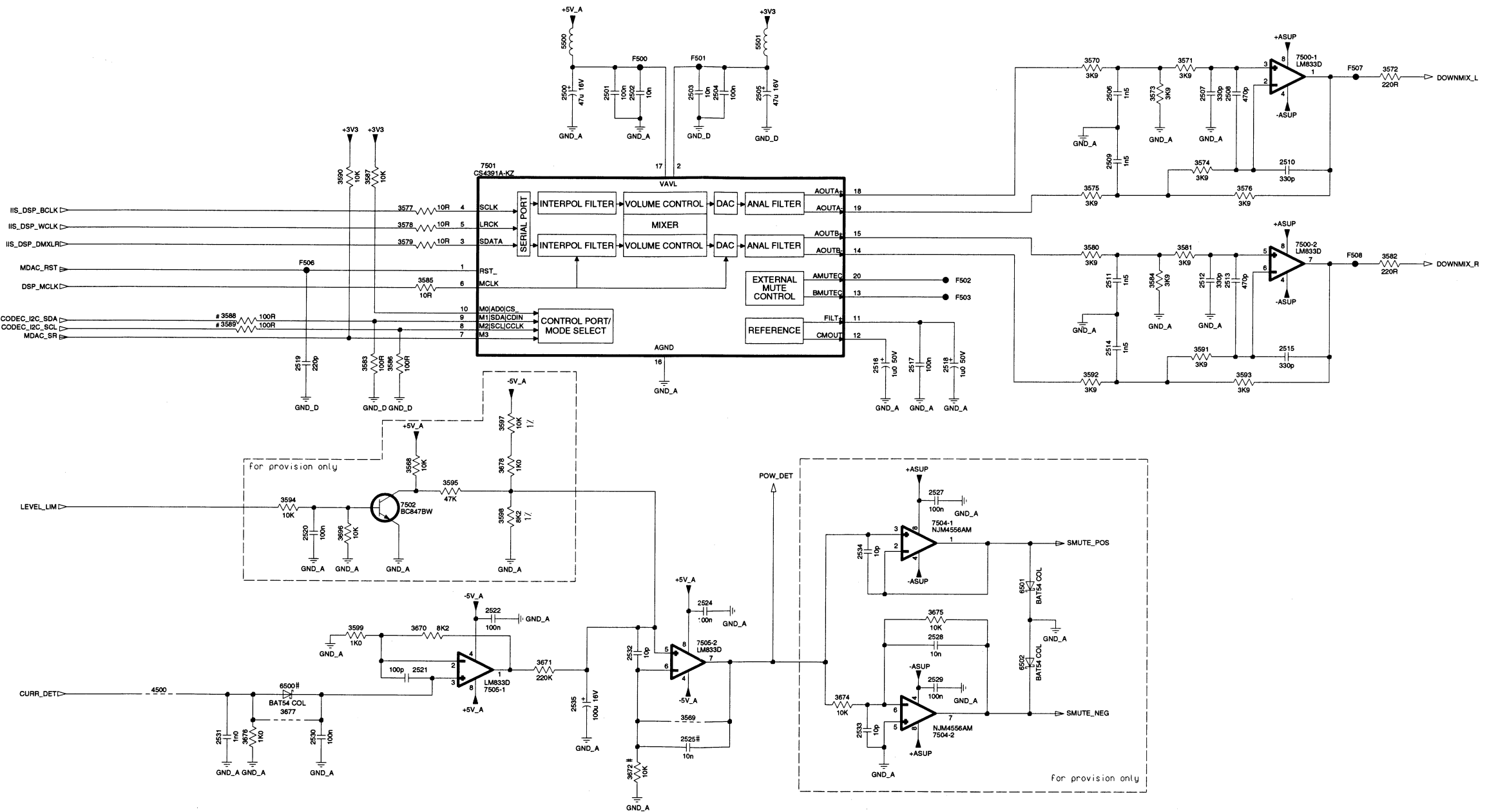
1400 B1	2409 A10	2419 B14	2429 C14	2439 E12	2449 F7	2459 G4	2469 G8	2479 H2	3459 A10	3469 B5	3479 C5	3489 D5	3499 D10	3510 E5	3520 E2	3530 F7	3540 G12	3550 G1	3560 H5	5400 A5	7407 E5	F413 B2	F427 C5	F440 D8	F453 G8	F470 F14
2400 A10	2410 A11	2420 B10	2430 D12	2440 E12	2450 F8	2460 G8	2470 G12	3450 A10	3460 A11	3470 B4	3480 C12	3490 D5	3500 D11	3510 E5	3521 E3	3531 F6	3541 G13	3551 G1	3561 H6	5401 A8	7409 E3	F415 B5	F426 C2	F442 D5	F454 G8	F471 D5
2401 A11	2411 A12	2421 B11	2431 D14	2441 E14	2451 F8	2461 G10	2471 G14	3451 A11	3461 A11	3471 B11	3481 C12	3491 D11	3501 D12	3511 E5	3522 E1	3532 F1	3542 G11	3552 G1	3562 H6	5402 F8	7410 E1	F416 B2	F427 C5	F443 D4	F455 G4	F472 D5
2402 A11	2412 A13	2422 B12	2432 D13	2442 E13	2452 F8	2462 G10	2472 G2	3452 A12	3462 B12	3472 C5	3482 E15	3492 D5	3502 D5	3512 E12	3523 F5	3533 F11	3543 G2	3553 G3	3563 H6	7400-1 A12	7409-2 G14	F417 B5	F431 C2	F446 E5	F461 B2	
2403 A5	2413 A14	2423 C4	2433 D11	2443 E5	2453 D12	2463 G12	2473 G3	3453 A10	3463 B3	3473 C5	3483 C5	3493 D5	3503 D15	3513 E14	3524 F5	3534 F15	3544 G4	3554 G6	3564 F2	7400-2 A14	7411-1 G3	F419 B5	F433 C2	F447 E8	F463 B2	
2404 A5	2414 B5	2424 C10	2434 D11	2444 E5	2454 F10	2464 G13	2474 H5	3454 A12	3464 B10	3474 C5	3484 C13	3494 D5	3505 D5	3515 E15	3525 E3	3535 F10	3545 G10	3555 G7	3565 G4	7402-1 B12	7411-2 G4	F420 C4	F436 C14	F448 E8	F465 A8	
2405 A8	2415 B6	2425 C11	2435 E3	2445 E12	2455 F11	2465 A14	2475 H6	3455 A13	3465 A11	3475 H6	3485 C11	3495 D10	3506 D10	3516 E11	3526 E3	3536 F11	3546 G16	3556 G8	3566 F8	7403-2 G12	7412-1 G12	F421 B5	F437 C2	F449 E8	F466 A8	
2406 A7	2416 B7	2426 C14	2436 E10	2446 E11	2456 F10	2466 G11	2476 H5	3456 E11	3466 B10	3476 C5	3486 C5	3496 D13	3507 D5	3517 E11	3527 E5	3537 F2	3547 G13	3557 G3	3567 G4	7413-2 H7	F423 C5	F437 C2	F450 F8	F467 A14	F468 A14	
2407 A7	2417 B7	2427 C12	2437 E11	2447 E7	2457 F3	2467 G8	2477 H5	3457 A11	3467 B10	3477 C10	3487 C5	3497 D5	3508 D5	3518 E13	3528 E12	3538 G8	3548 G8	3558 H2	4400 E5	7405-1 D12	F410 B14	F424 C2	F438 D5	F451 G8	F468 A14	
2408 A7	2418 B12	2428 C13	2438 E11	2448 F7	2458 F8	2468 G7	2478 H5	3458 A13	3468 B5	3478 C11	3488 C5	3498 D5	3509 E2	3519 E4	3529 E13	3539 G11	3549 G6	3559 H3	4401 D3	7405-2 A14	F411 B2	F425 C5	F439 D14	F452 G14	F469 C2	



2500 B6	2504 B8	2508 B12	2512 D12	2516 D9	2520 F4	2525 G7	2530 G4	2534 F9	3570 B11	3574 C12	3578 C5	3582 C13	3586 D5	3590 C4	3594 E4	3599 G5	3674 G9	3678 E6	5501 B8	7500-1 B12	7504-1 F9	F500 B7	F506 C4
2501 B7	2505 B8	2509 C11	2513 D12	2517 D9	2521 G5	2527 E9	2531 G3	2535 G6	3571 B12	3575 C11	3579 C5	3583 D5	3587 C5	3591 D12	3595 E5	3670 G5	3675 F9	3696 F4	6500 G4	7500-2 C12	7504-2 G9	F501 B7	F507 B13
2502 B7	2506 B11	2510 C12	2514 D11	2518 D10	2522 F6	2528 G9	2532 G7	2536 E5	3572 B13	3576 C12	3580 C11	3584 D11	3588 D3	3592 D11	3597 E6	3671 G6	3676 G4	4500 G3	6501 F10	7501 C6	7505-1 G6	F502 D10	F508 C13
2503 B7	2507 B12	2511 D11	2515 D12	2519 D4	2524 F8	2529 G9	2533 G9	2537 G7	3573 B11	3577 C5	3581 C12	3585 D5	3589 D3	3593 D12	3598 F6	3672 H7	3677 G4	5500 B6	6502 G10	7502 F5	7505-2 G7	F503 D10	



ASP BOARD AUDIO STEREO DAC / OVERLOAD PROTECTION



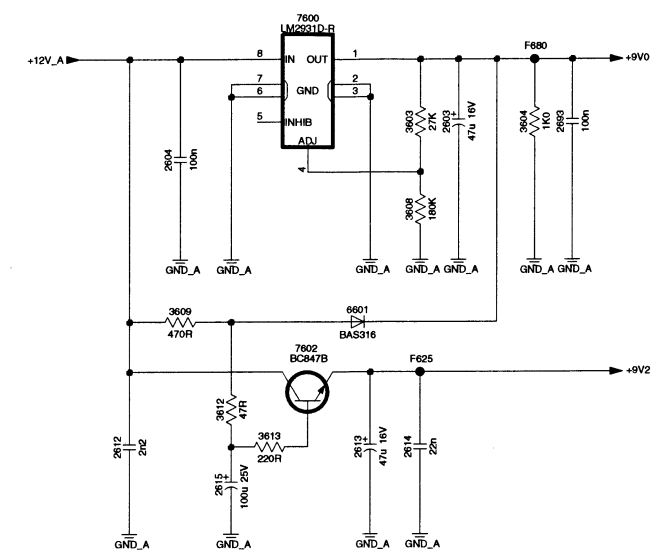
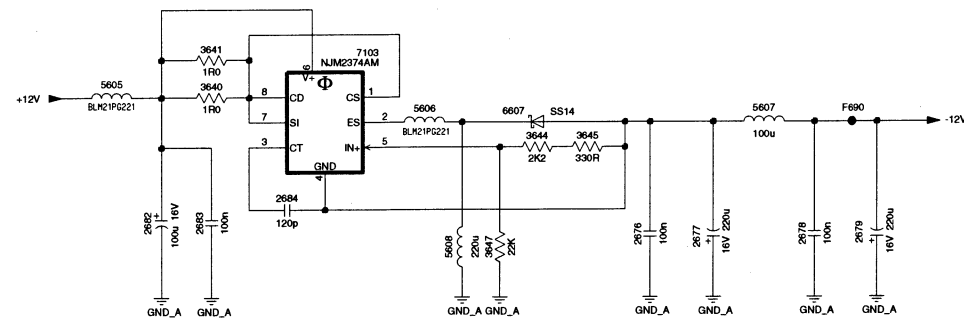
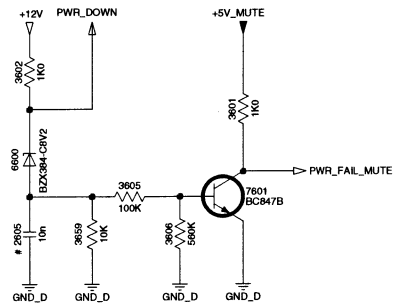
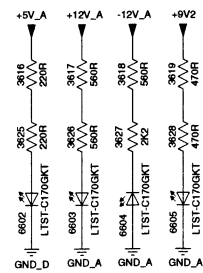
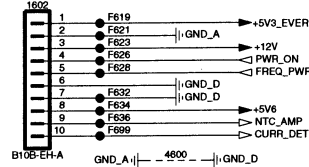
only for provision

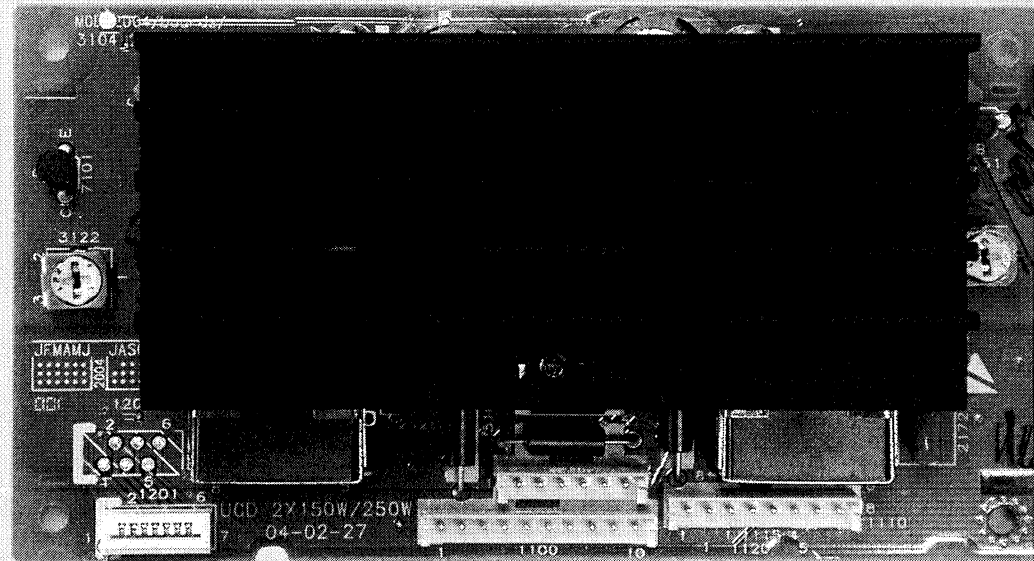
1600 A15	2604 A7	2612 C7	2620 D12	2629 D13	2637 E8	2645 E7	2653 E9	2661 H12	2669 H13	2677 H5	2688 E9	3600 A4	3608 B8	3616 C2	3625 C2	3633 G13	3641 G2	3652 A10	3660 E12	3680 A13	5602 E7	6602 C2	6610 A11	7605 F12	F618 C14	F626 B2	F637 D14	F645 F14	F653 G14	F664 H14	F683 A14	F693 D5
1601 C15	2605 E1	2613 C8	2621 D12	2630 D4	2638 E8	2646 E7	2654 E9	2662 H12	2670 H13	2678 H5	2689 E9	3601 E2	3609 B7	3617 C2	3626 C2	3634 G13	3644 G4	3653 A11	3661 E12	3681 A14	5604 D4	6603 C2	6611 B11	7606 F13	F619 A2	F627 C14	F638 D14	F646 F14	F655 E10	F665 H14	F684 A14	F694 C5
1602 A2	2606 B4	2614 C8	2622 D13	2631 D5	2639 E8	2647 E7	2655 H11	2663 H12	2671 H14	2679 H6	2690 B11	3602 E1	3610 C11	3618 C2	3627 C2	3635 G13	3645 G4	3654 A12	3662 E12	3682 D11	5605 G1	6604 D2	7103 G3	F607 E4	F620 C14	F628 B2	F639 D14	F647 G14	F656 G14	F687 A14	F696 B5	
1603 F15	2607 B5	2615 C7	2623 D13	2632 D5	2640 E8	2648 E8	2656 H11	2664 H13	2672 G7	2682 H2	2691 B12	3603 A8	3611 B4	3619 C3	3628 C3	3636 E4	3647 H3	3655 A12	3663 E12	3683 F4	5606 C3	6605 C3	7600 A8	F610 C14	F621 A2	F629 D14	F640 D14	F648 G14	F657 G14	F688 A14	F696 A5	
2600 A4	2608 B5	2616 C4	2625 D13	2633 E7	2641 E9	2649 E8	2657 H12	2665 H13	2673 G7	2683 H2	2692 F5	3604 A9	3612 C7	3621 D4	3629 G13	3637 F11	3648 A13	3656 B10	3664 F4	3684 F5	5607 G5	6606 E4	7601 E2	F611 C14	F622 C14	F632 B2	F641 D14	F649 G14	F660 G14	F689 A14	F697 A5	
2601 A5	2609 C4	2617 C5	2626 D13	2634 E7	2642 E9	2650 E8	2658 H12	2666 H13	2674 G9	2684 G2	2693 A9	3605 E2	3613 C8	3622 F13	3630 G13	3638 G13	3649 A13	3657 B11	3665 F4	4600 B2	6608 H3	6607 G4	7602 B8	F613 C14	F623 A2	F633 D14	F642 D10	F650 G6	F661 G14	F680 A14	F698 A5	
2602 A5	2610 C5	2618 C5	2627 D13	2635 E7	2643 E4	2651 E8	2659 H12	2667 H13	2675 G9	2686 E9	2694 D14	3606 E2	3614 C4	3623 F13	3631 G13	3639 G13	3650 G13	3658 B11	3666 G13	4601 D11	6600 E1	6608 A11	7603 G8	F615 C14	F624 C14	F634 B2	F643 F14	F651 G14	F662 H14	F681 A14	F691 E5	
2603 A9	2611 C5	2619 D12	2628 D13	2636 E8	2644 E5	2652 E8	2660 H12	2668 H13	2676 H4	2687 E9	3155 F11	3607 A4	3615 D12	3624 F13	3632 G13	3640 G2	3651 G13	3659 E2	3679 F4	5601 D7	6601 B8	6609 A12	7604 B12	F617 C14	F625 B9	F636 B2	F644 F14	F652 G14	F663 H14	F682 D14	F692 E5	

6

ASP BOARD
AUDIO SUPPLY

FROM SUPPLY BOARD





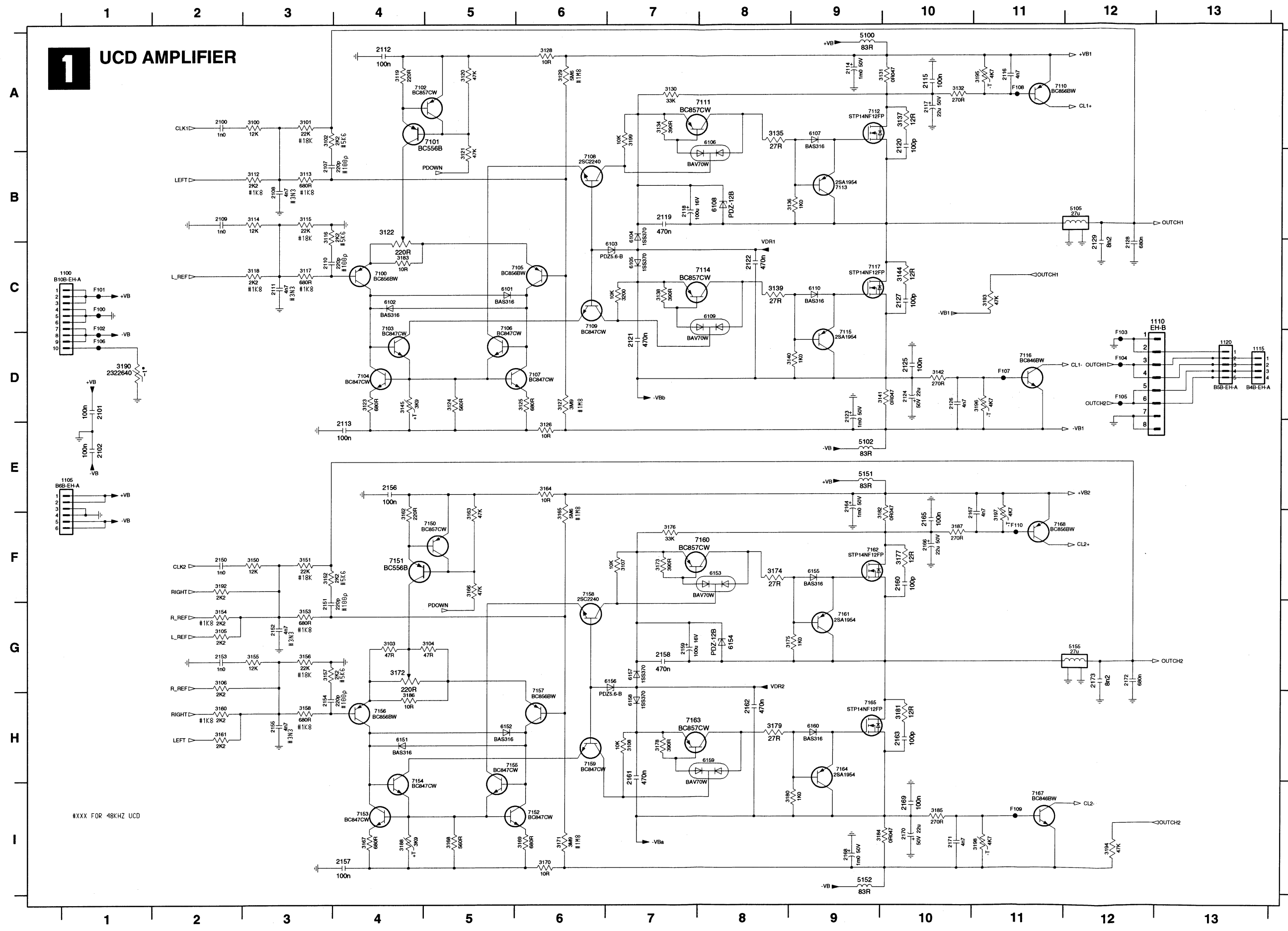
UCD Amplifier

**This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.**

In case of defects please replace the entire board.

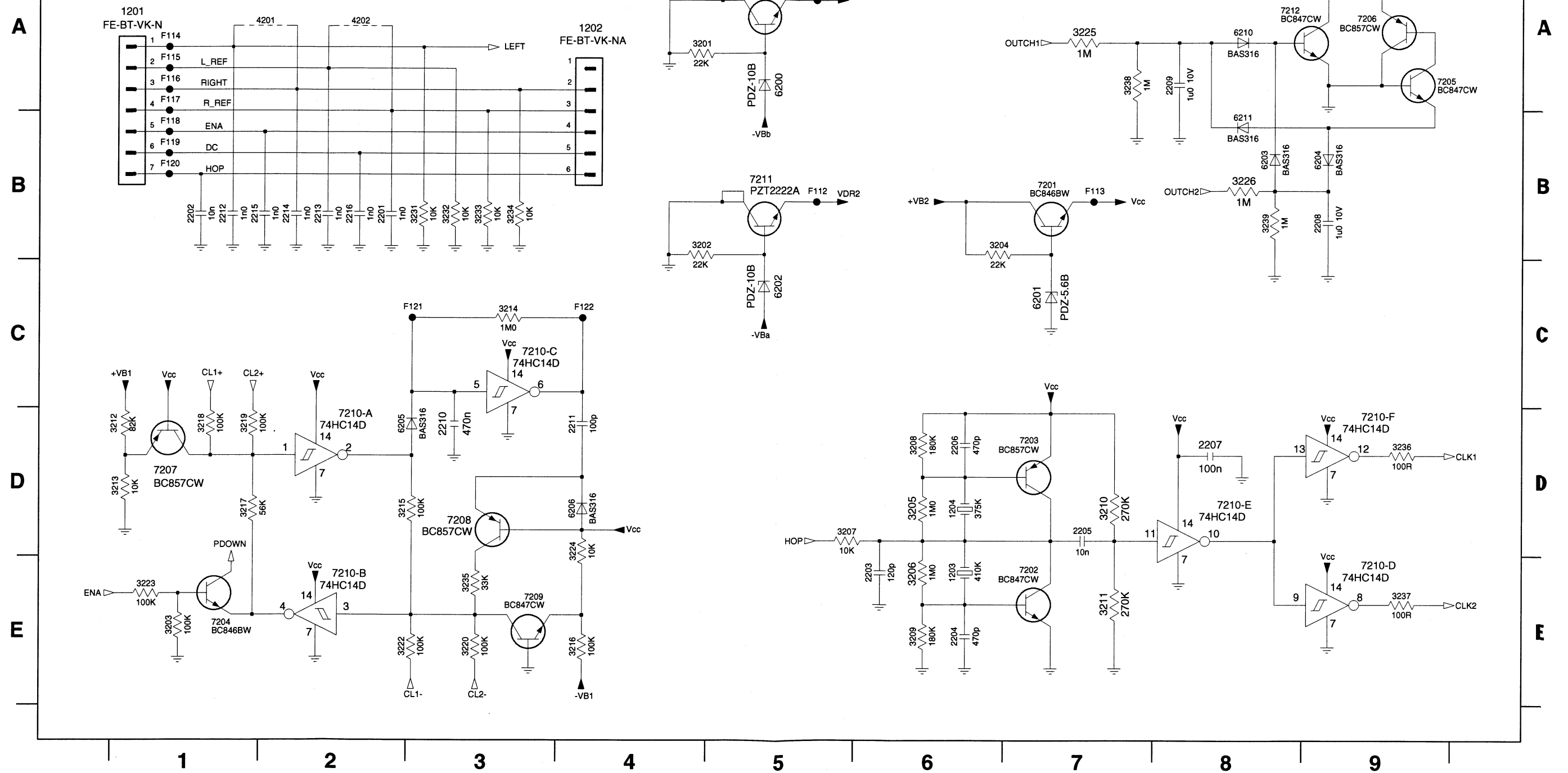
Boards can be ordered with codenumber "3139 118 58631".

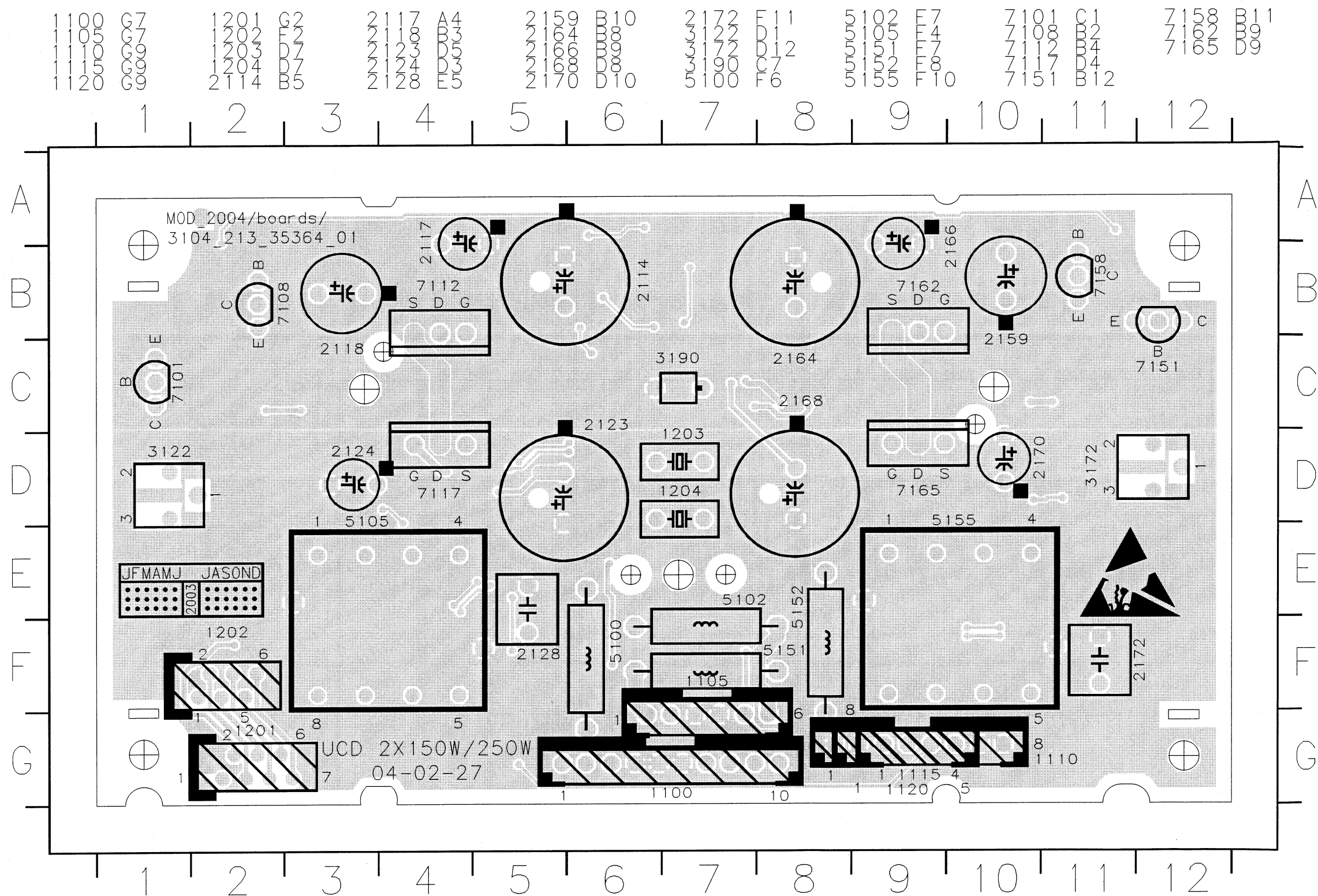
1 UCD AMPLIFIER

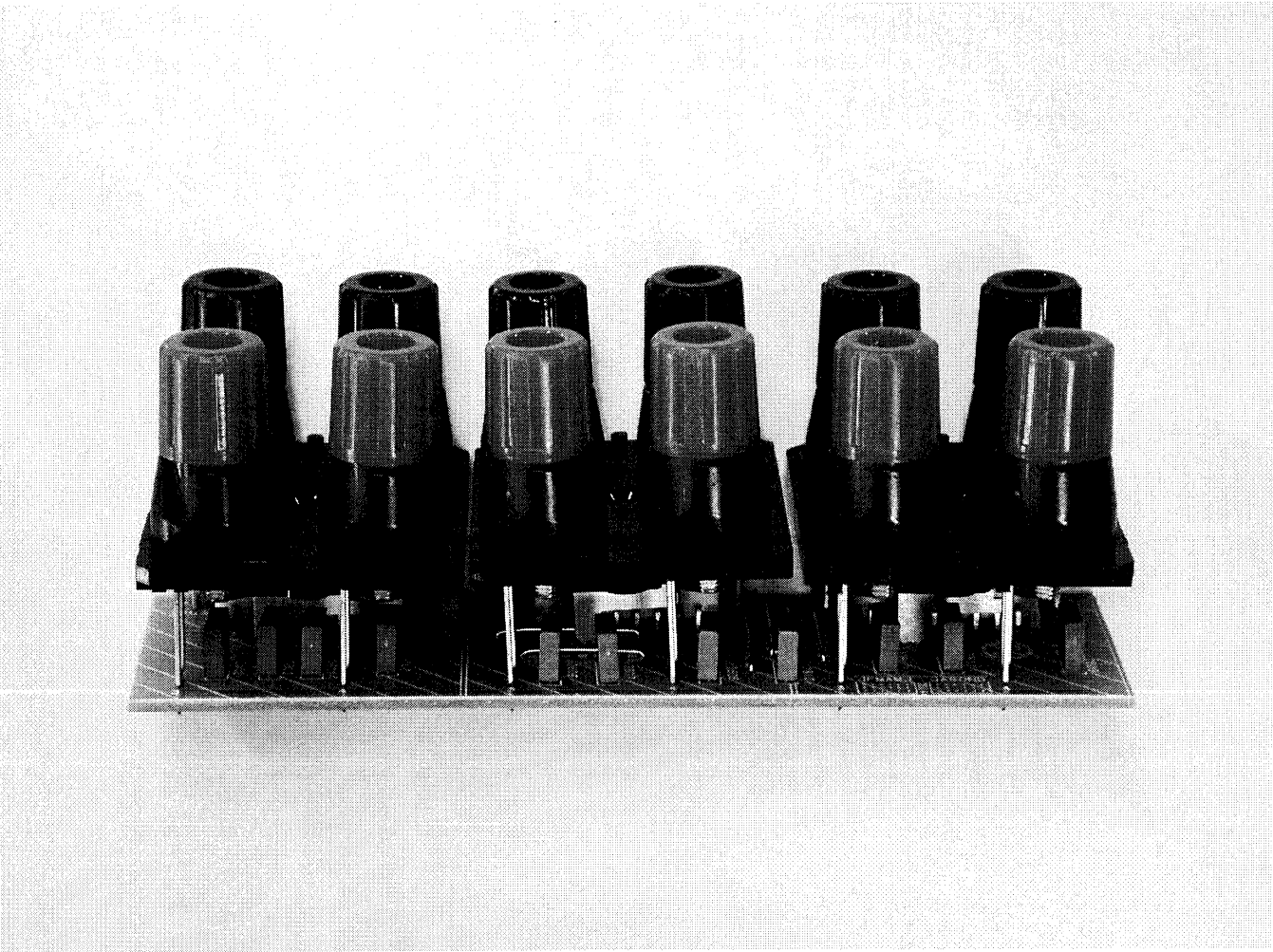


1100 C1	3182 F10
1105 E1	3183 C4
1110 C12	3184 I10
1115 D13	3185 I10
1120 D13	3186 H4
2100 A2	3187 F10
2101 D1	3188 I4
2102 E1	3190 D1
2107 B3	3192 F2
2108 B5	3193 C11
2109 B2	3194 I12
2110 C3	3195 A11
2111 C3	3196 D11
2112 A4	3197 E11
2113 E4	3198 I11
2114 A8	3199 A7
2115 A10	3200 C7
2116 A11	5100 A9
2117 A10	5102 E9
2118 B7	5105 B12
2119 B7	5151 E9
2120 A10	5152 I9
2121 D7	5155 G12
2122 C8	6101 C5
2123 D9	6102 C4
2124 D10	6103 C7
2125 D10	6104 B7
2126 D10	6105 C7
2127 C10	6106 A8
2128 C12	6107 A9
2129 C12	6108 B8
2150 F2	6109 C8
2151 G3	6110 C9
2152 G3	6151 H4
2153 G2	6152 H5
2154 H3	6153 F8
2155 H3	6154 G8
2156 E4	6155 F9
2157 I4	6156 G7
2158 G7	6157 G7
2159 G7	6158 H7
2160 F10	6159 H8
2161 H7	6160 H9
2162 H8	7100 C4
2163 H10	7101 A5
2164 E9	7102 A4
2165 F10	7103 C4
2166 F10	7104 D4
2167 F10	7105 C6
2168 I9	7106 C5
2169 I10	7107 D6
2170 I10	7108 B6
2171 I10	7109 C6
2172 G12	7110 A11
2173 G12	7111 A8
3100 A3	7112 A9
3101 A3	7113 B9
3102 A3	7114 C8
3103 G4	7115 C9
3104 G5	7116 D11
3105 G2	7117 C9
3106 G2	7150 F4
3107 F7	7151 F4
3108 H7	7152 I6
3112 B3	7153 I4
3113 B3	7154 I4
3114 B3	7155 H6
3115 B3	7156 H4
3116 B3	7157 G6
3117 C3	7158 F6
3118 C3	7159 H6
3119 A4	7160 F8
3120 A5	7161 G9
3121 B5	7162 F9
3122 B4	7163 H8
3123 D4	7164 H9
3124 D5	7165 H9
3125 D6	7167 I11
3126 E6	7168 F11
3127 D6	F100 C1
3128 A6	F101 C1
3129 A6	F102 C1
3130 A7	F103 D12
3131 A10	F104 D12
3132 A10	F105 D12
3134 A7	F106 D1
3135 A8	F107 D11
3136 B9	F108 A11
3137 A10	F109 I11
3138 C7	F110 F11
3139 C8	
3140 D9	
3141 D10	
3142 D10	
3144 C10	
3145 D4	
3150 F3	
3151 F3	
3152 F3	
3153 G3	
3154 G2	
3155 G3	
3156 G3	
3157 G3	
3158 H3	
3160 H2	
3161 H2	
3162 F4	
3163 F5	
3164 E6	
3165 F6	
3166 F5	
3167 I4	
3168 I5	
3169 I6	
3170 I6	
3171 I6	
3172 G4	
3173 F7	
3174 F8	
3175 G9	
3176 F7	
3177 F10	
3178 H7	
3179 H8	
3180 I9	
3181 H10	

2 UCD AMPLIFIER







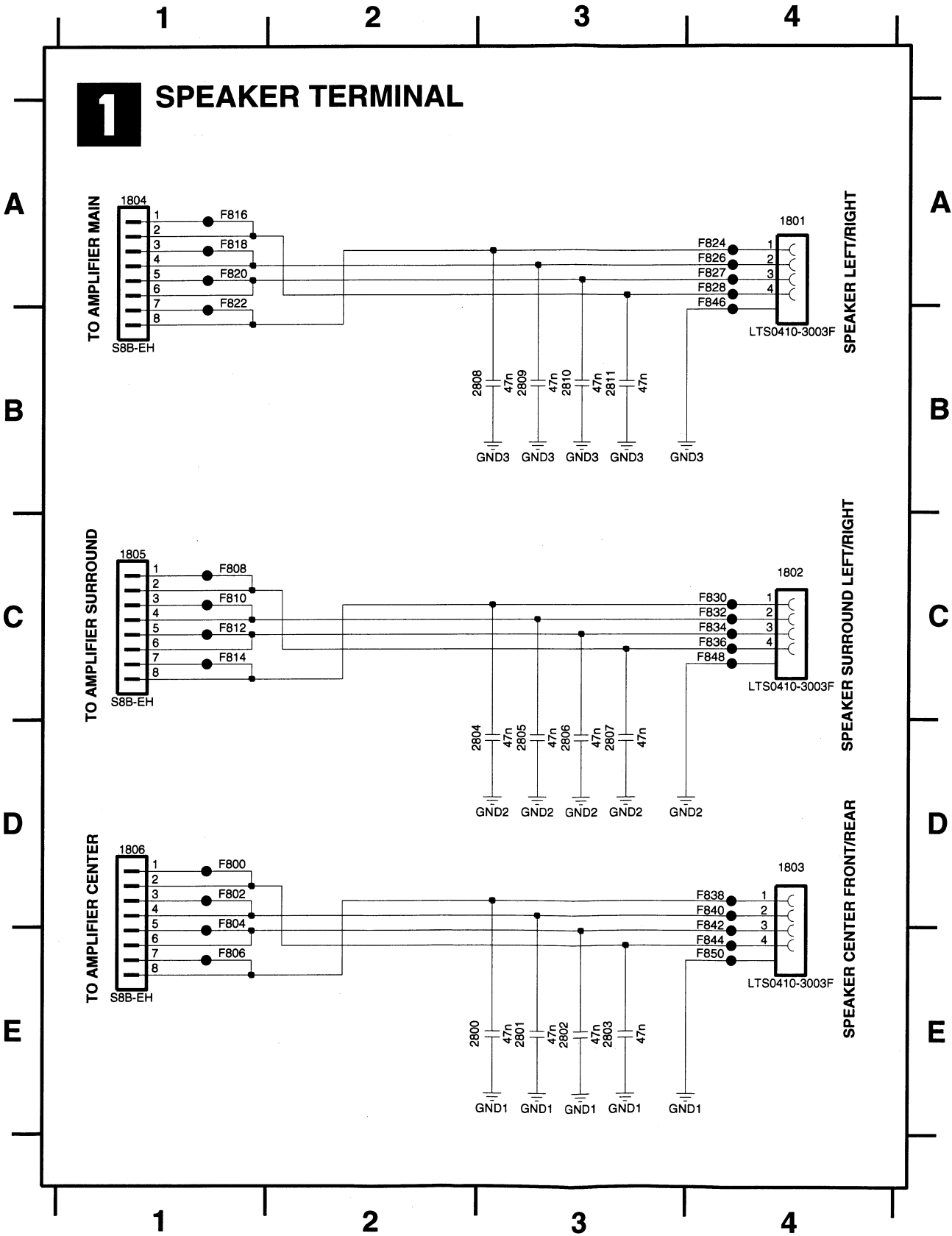
Speaker Terminal

This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.

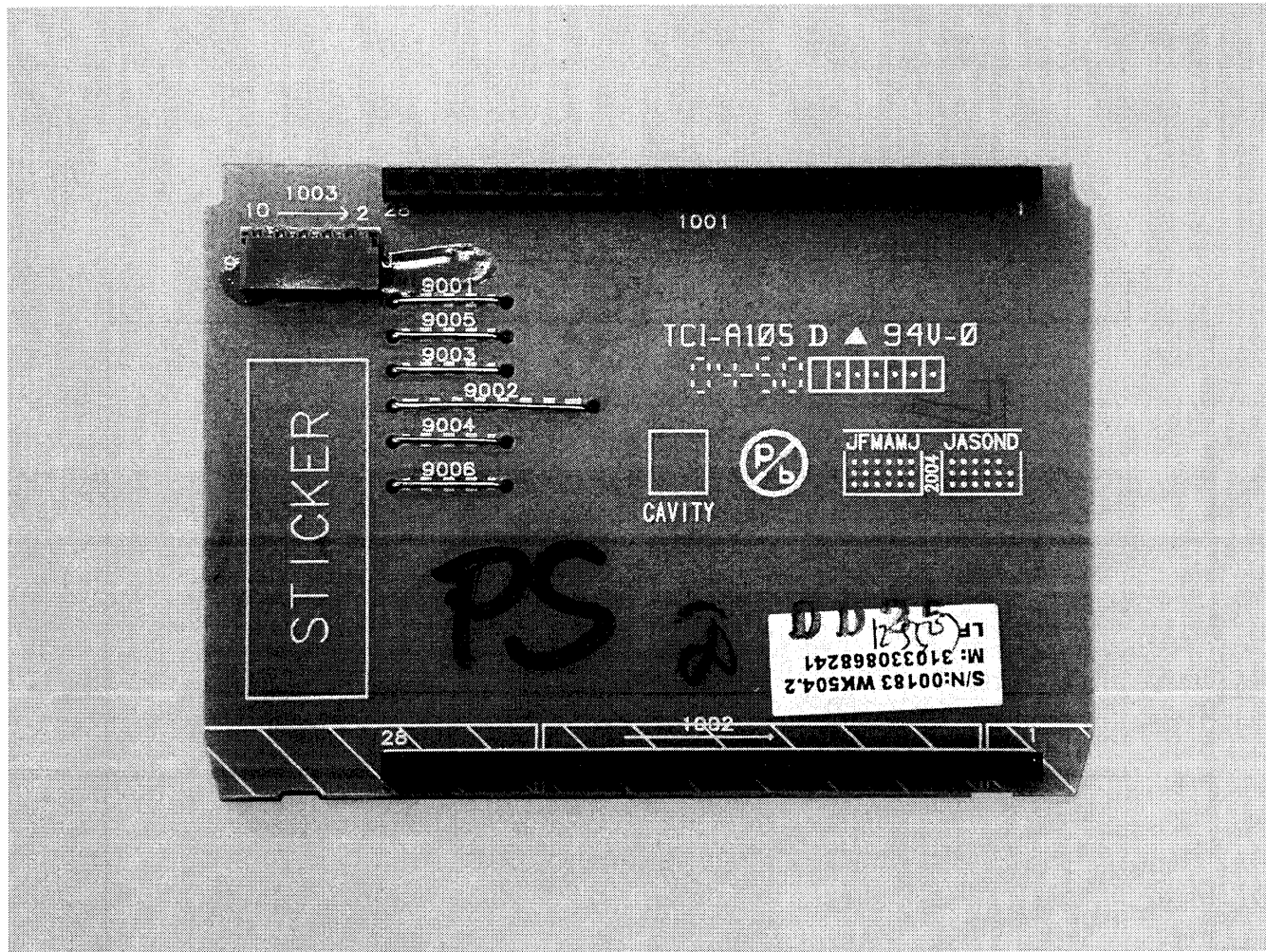
In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26725".

1801 A4	1806 D1	2804 D2	2809 B3	F804 E1	F814 C1	F824 A4	F832 C4	F842 E4
1802 C4	2800 E2	2805 D3	2810 B3	F806 E1	F816 A1	F826 A4	F834 C4	F844 E4
1803 D4	2801 E3	2806 D3	2811 B3	F808 C1	F818 A1	F827 A4	F836 C4	F846 B4
1804 A1	2802 E3	2807 D3	F800 D1	F810 C1	F820 A1	F828 A4	F838 D4	F848 C4
1805 C1	2803 E3	2808 B2	F802 D1	F812 C1	F822 B1	F830 C4	F840 D4	F850 E4



[illegible]



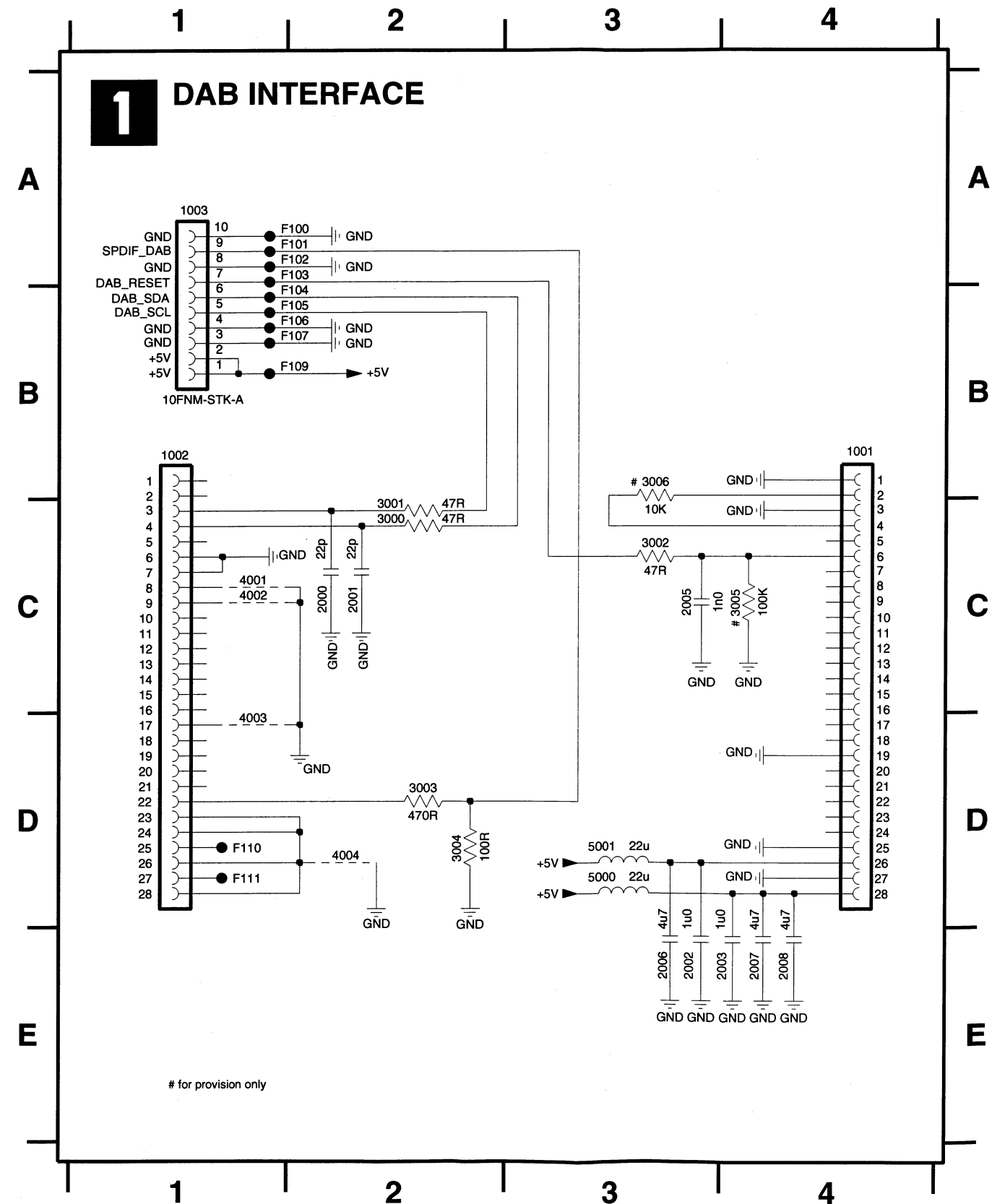
DAB Interface

This board is not intended to be repaired on component level.
Circuit Diagrams and Printed Circuit Board drawings
are published for orientation only.

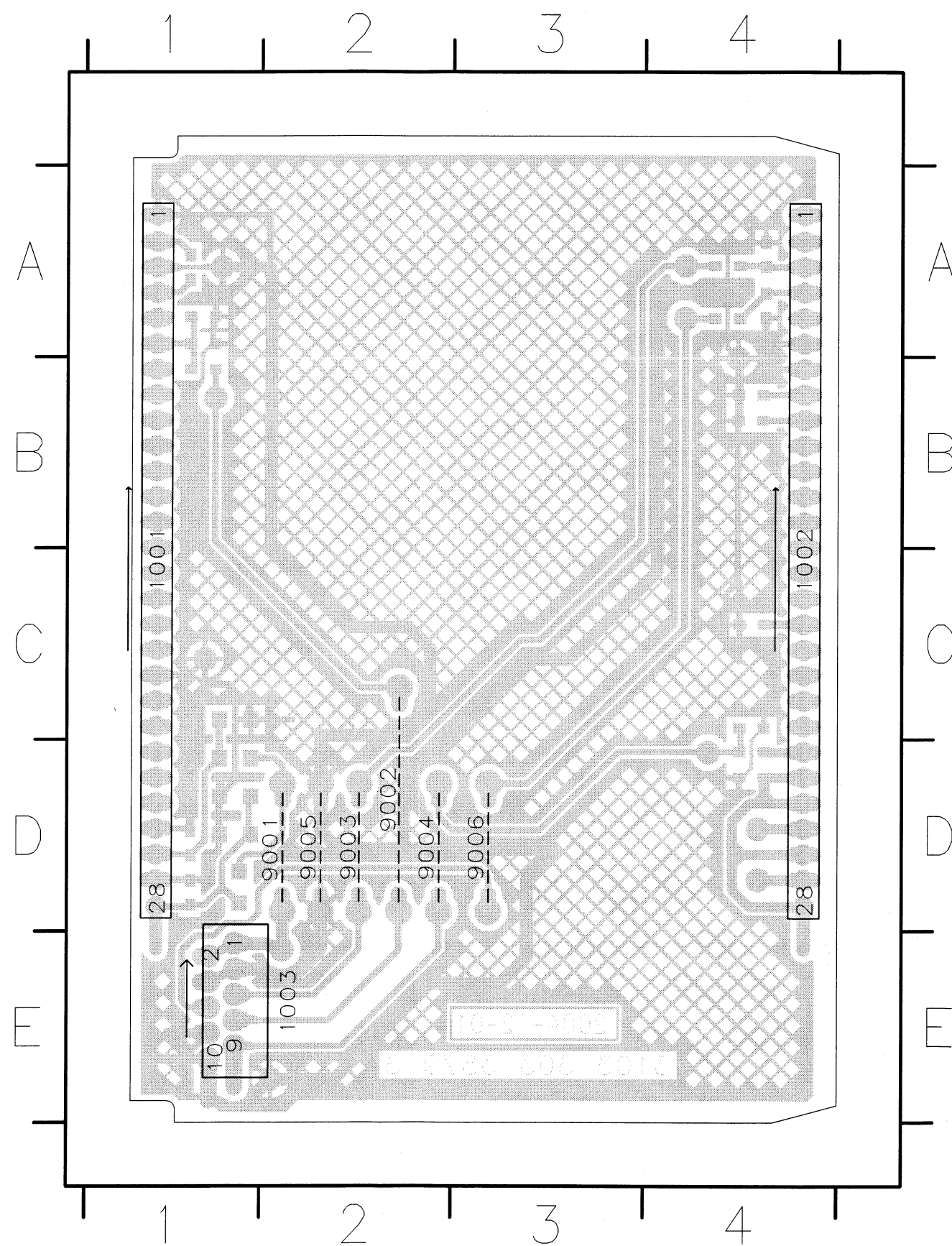
In case of defects please replace the entire board.

Boards can be ordered with codenumber "9965 000 26726".

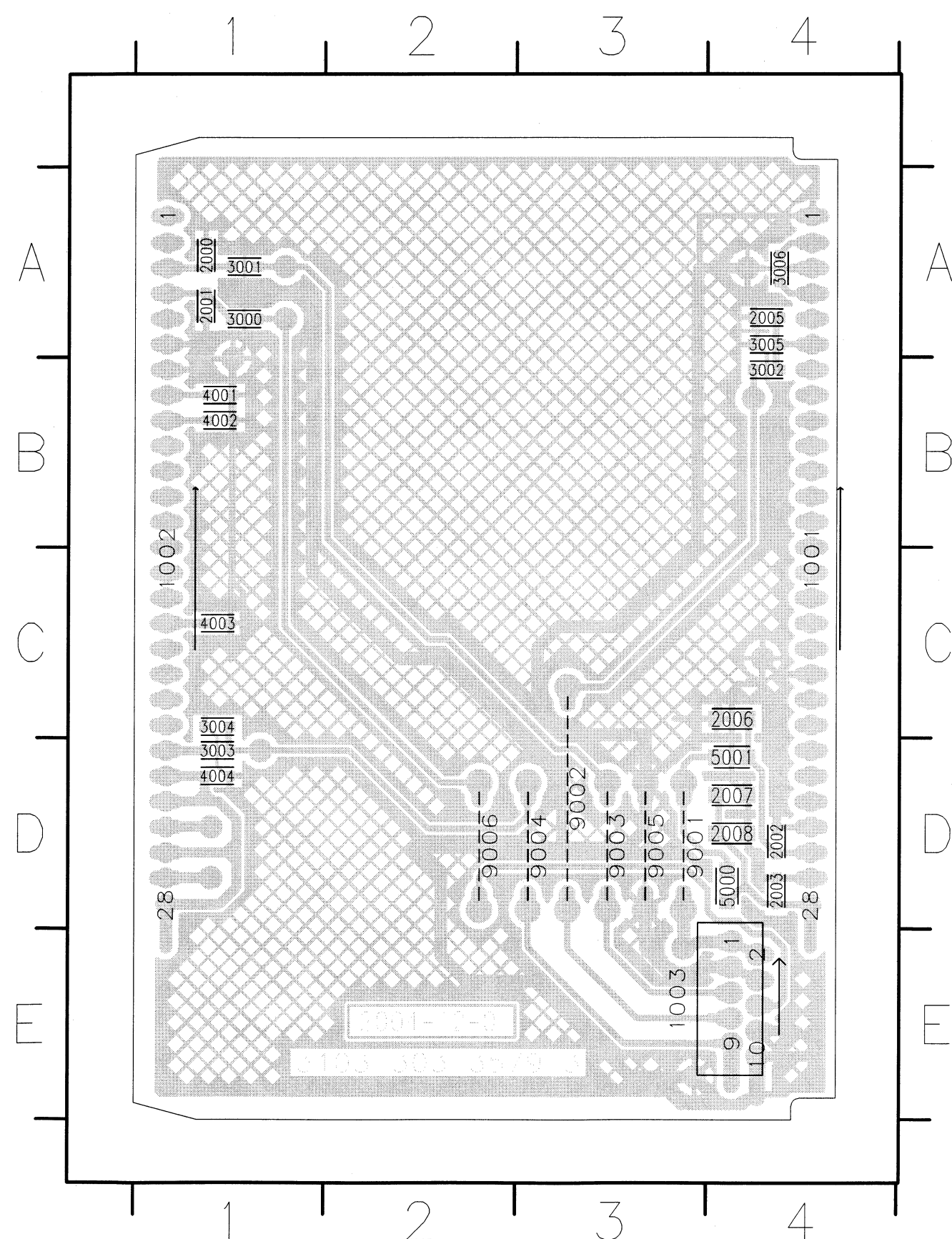
1001 B4	2001 C2	2006 E3	3001 C2	3005 C4	4003 D1	F100 A2	F104 B2	F109 B2
1002 B1	2002 E3	2007 E4	3002 C3	3006 B3	4004 D2	F101 A2	F105 B2	F110 D1
1003 A1	2003 E3	2008 E4	3003 D2	4001 C1	5000 D3	F102 A2	F106 B2	F111 D1
2000 C2	2005 C3	3000 C2	3004 D2	4002 C1	5001 D3	F103 A2	F107 B2	



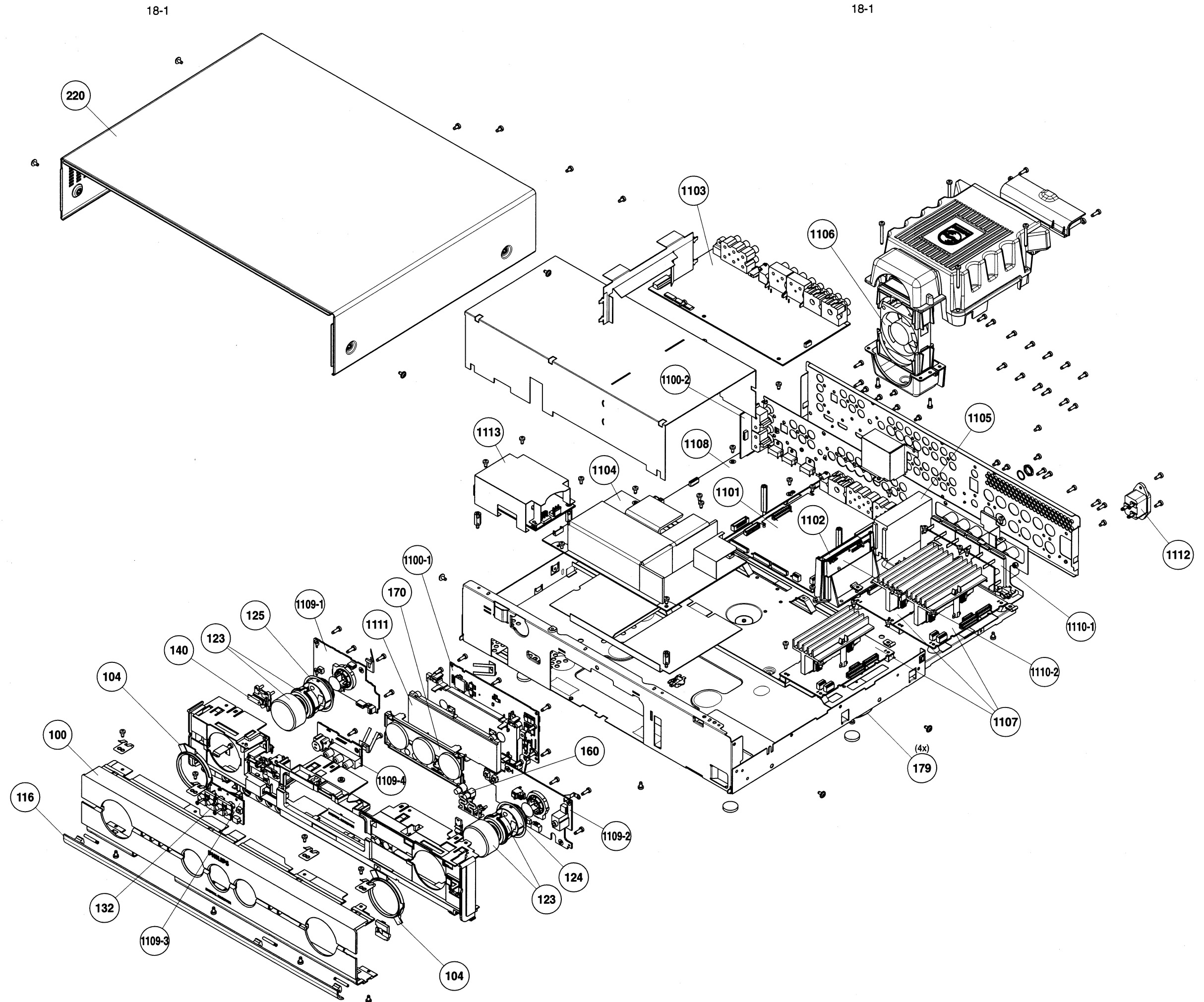
1001 C1 1003 E2 9002 D2 9004 D2 9006 D3
 1002 C4 9001 D2 9003 D2 9005 D2



2000 A1 2006 C4 3002 B4 4001 B1 5001 D4
 2001 A1 2007 D4 3003 D1 4002 B1
 2002 D4 2008 D4 3004 C1 4003 C1
 2003 D4 3000 A1 3005 A4 4004 D1
 2005 A4 3001 A1 3006 A4 5000 D4



EXPLODED VIEW



PARTSLIST

100	3103 308 16471	FRONT-ALU-PRI DFR9000/01
104	3103 308 13861	RING-CHROMIUM
116	3103 308 16481	DOOR-ALU-PRI
123	3103 308 13661	KNOB ROTARY ASSY
124	3103 304 73692	LIGHT-GUIDE-RING
125	3103 304 75541	LIGHT-GUIDE-RING-SOURCE
132	3103 308 16491	BUTTON-SET-LEFT-ASSY
140	3103 308 13821	BUTTON-STANDBY-ASSY
160	3103 308 16511	BUTTON-SET-RIGHT-ASSY
170	3103 304 77581	LENS DFR9000
179	3103 304 74191	FEET LX9000R
220	3103 308 16611	COVER-TOP-LAC DFR9000
1100-1	9965 000 26719	PBAS FRONT-CONTROL
1100-2	9965 000 26720	PBAS DIGITAL-I/O
1101	3103 308 68221	PBAS ASP
1102	3103 308 55921	DAB TUNER GYRO 1115 SLAVE
1103	3103 308 68181	PBAS VIDEO IO
1104	3103 308 55991	POWER SUPPLY AC6750
1105	2422 542 90137	AM/FM TUNER ENG07703Q EUR B
1106	3103 308 55901	FAN KDE1206PKV3 / 470MM
1107	3139 118 58631	UCD AMPLIFIER DFR9000
1108	3103 608 51512	PBAS VPB PAL
1109-1	9965 000 26721	PBAS FRONT-LEFT
1109-2	9965 000 26722	PBAS FRONT-RIGHT
1109-3	9965 000 26723	PBAS KEY
1109-4	9965 000 26724	PBAS FRONT-I/O
1110-1	9965 000 26725	PBAS SPEAKER TERMINAL
1110-2	9965 000 26726	PBAS DAB INTERFACE
1111	3103 308 55861	LCD 5434FGPWTNH
1112	2422 030 00408	MAINS SOCKET
1113	3103 308 68331	PBAS STANDBY POWER SUPPLY
8000	3103 308 94811	FFC 14/170/14 AD 1MMP
8001	3103 308 93341	FFC 3/60/3 BD 1,25MMP
8002	3103 308 94571	FFC 14/140/14 AD 1MMP
8003	3103 308 94601	FFC 22/280/22 AD 1MMP
8004	3103 308 94611	FFC 24/280/24 AD 1MMP
8005	3103 308 94542	FFC 12/320/12 AD 1MMP
8006	3103 308 94652	FFC 4/480/4 AD 1,25MMP
8007	3103 308 94662	FFC 7/140/7 AD 1,25MMP
8008	3103 308 94671	FFC 7/280/7 AD 1,25MMP
8009	3103 308 94681	FFC 7/420/7 AD 1,25MMP
8010	3103 308 94821	FFC 11/90/11 AD 1.25MMP
8011	3103 308 94502	FFC 10/380/10 AD 1MMP
8012	3103 308 94622	FFC 25/150/25 AD 1MMP
8013	3103 308 94531	FFC 12/110/12 BD 1MMP
8014	3103 308 94581	FFC 22/110/22 BD 1MMP
8015	3103 308 94472	FFC 7/80/7 AD 1MMP
8016	3103 308 94481	FFC 9/120/9 BD 1MMP
8017	3103 601 00311	CBLE KR 9P/380/9P KR SLD UL
8019	3103 308 94752	CBLE HR 10/380/10 HR BK
8020	3103 308 94691	CBLE PH 12/60/12 PH BK
8021	3103 308 94772	CBLE EH 10/440/10 EH BK AWG22
8022	3103 308 94702	CBLE EH 6/320/6 EH BU AWG22
8023	3103 308 94712	CBLE EH 10/360/10 EH BU AWG22
8024	3103 308 94732	CBLE EH 8/240/8 EH BU AWG24
8025	3103 308 94722	CBLE EH 8/200/8 EH BU AWG24
8026	3103 308 94742	CBLE EH 8/380/8 EH BU AWG24
8028	3103 308 94831	CBLE VH 2/650/2 VH BU/BN
8029	3103 308 95061	CBLE VH 2/300/2 VH BU/BN
8030	3103 308 95071	CBLE EH 5/200/5 EH AWG26

→ For accessories see chapter 1-4

REVISION LIST

Service Manual 3103 785 25290 – Version 1.0

• Initial release